
HIGHLIGHTS OF PRESCRIBING INFORMATION These highlights do not include all the information needed to use SINCALIDE FOR INJECTION safely and effectively. See full prescribing information for SINCALIDE FOR INJECTION SINCALIDE for injection, for intravenous use Initial U.S. Approval: 1976 RECENT MAJOR CHANGES
Contraindications (4) 10/2023 Warnings and Precautions, Anaphylaxis, Anaphylactic Shock and other Serious Hypersensitvity Reactions (5.1) 10/2023
 INDICATIONS AND USAGE Sincalide for Injection is a cholecystokinin (CCK) analog indicated in adults to: stimulate gallbladder contraction, as may be assessed by various methods of diagnostic imaging, or to obtain by duodenal aspiration a sample of concentrated bile for analysis of cholesterol, bile salts, phospholipids, and crystals. (1)
 stimulate pancreatic secretion in combination with secretin prior to obtaining a duodenal aspirate for analysis of enzyme activity, composition, and cytology. (1)
 accelerate the transit of a barium meal through the small bowel, thereby decreasing the time and extent of radiation associated with fluoroscopy and x-ray examination of the intestinal tract. (1)
 DOSAGE AND ADMINISTRATION
For injection: 5 mcg of sincalide as a lyophilized cake or powder in a single-dose vial for reconstitution (3)
 History of hypersensitivity to sulfites or sincalide. (4, 5.1) Intestinal obstruction. (4)
Anaphylaxis Anaphylactic Shock and Other Serious Hypersensitivity Reactions: Contains sodium

- <u>Anaphylaxis, Anaphylactic Shock and Other Serious Hypersensitivity Reactions</u>: Contains sodium metabisulfite. Serious reactions may occur during or soon after administration. If symptoms occur, discontinue the drug. (4, 5.1)
- <u>Evacuation of Gallstones</u>: Stimulation of gallbladder contraction in patients with small gallbladder stones could lead to the evacuation of the stones from the gallbladder, resulting in their lodging in the cystic duct or in the common bile duct. (5.2)

- <u>Gastrointestinal Adverse Reactions with Intravenous Injection</u>: Administration as an intravenous injection may cause transient nausea, vomiting, abdominal pain or cramping, dizziness or flushing. To reduce the risk of adverse reactions when used to simulate contraction of the gallbladder or accelerate transit of a barium meal through the small intestine, administer as an intravenous infusion over 50 or 30 minutes, respectively. (2.1, 5.3)
- <u>Preterm Labor or Spontaneous Abortion</u>: Advise pregnant women of the potential risk for preterm labor and spontaneous abortion. (5.4, 8.1)

ADVERSE REACTIONS Most common adverse reactions (≥20%) are: abdominal discomfort or pain, and nausea. (6) To report SUSPECTED ADVERSE REACTIONS, contact Fosun Pharma USA Inc. at 1-866-611-3762 or FDA at 1-800-FDA-1088 or www.fda.gov/medwatch.

Drugs that Affect Gallbladder Motility or Contractile Response: May interfere with response to sincalide. Consider discontinuing these drugs prior to administration of Sincalide for Injection, when used to stimulate contraction of the gallbladder. (7.1)

Revised: 12/2023

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FULL PRESCRIBING INFORMATION

1 INDICATIONS AND USAGE

Sincalide for Injection is indicated in adults to:

- stimulate gallbladder contraction, as may be assessed by various methods of diagnostic imaging, or to obtain by duodenal aspiration a sample of concentrated bile for analysis of cholesterol, bile salts, phospholipids, and crystals;
- stimulate pancreatic secretion in combination with secretin prior to obtaining a duodenal aspirate for analysis of enzyme activity, composition, and cytology;
- accelerate the transit of a barium meal through the small bowel, thereby decreasing the time and extent of radiation associated with fluoroscopy and x-ray examination of the intestinal tract.

2 DOSAGE AND ADMINISTRATION

2.1 Recommended Dosage and Administration Instructions

The recommended dosage and administration of Sincalide for Injection by indication is shown in Table 1. For preparation instructions see *Dosage and Administration (2.2)*.

To stimulate contraction of the gallbladder	Sincalide for Injection 0.02 mcg/kg as a single dose over 30 to 60 seconds via intravenous injection. If satisfactory contraction does not occur in 15 minutes, administer a dose of 0.04 mcg/kg over 30 to 60 seconds.
	Alternatively, Consider an Intravenous Infusion to Reduce Gastrointestinal Adverse Reactions <i>[see Warnings and Precautions</i> (5.3)]: 0.12 mcg/kg diluted in 100 mL of 0.9% Sodium Chloride Injection USP and infused over 50 minutes at a rate of 2 mL per minute
To stimulate pancreatic	Secretin for Injection: 0.25 units/kg as intravenous infusion over 60 minutes
secretion in combination with secretin for injection	Sincalide for Injection: 30 minutes after initiation of secretin infusion, administer Sincalide for Injection 0.02 mcg/kg diluted in 30 mL of 0.9% Sodium Chloride Injection USP and infused over 30 minutes at a rate of 1 mL per minute.
	After the barium meal is beyond the proximal jejunum, administer Sincalide for Injection 0.04 mcg/kg over 30 to 60 seconds via intravenous injection.
To accelerate the transit of a barium meal through the	If satisfactory transit of the barium meal has not occurred in 30 minutes, administer a second dose of 0.04 mcg/kg over 30 to 60 seconds.
small intestine	<u>Alternatively, Consider an Intravenous Infusion to Reduce</u> Gastrointestinal Adverse Reactions[See Warnings and Precautions

Table 1: Recommended Adult Dosage and Administration of Sincalide forInjection by Treatment Indication

2.2 Preparation Instructions

For Intravenous Injection

- Reconstitute Sincalide for Injection aseptically by adding 5 mL of Sterile Water for Injection USP to the vial.
- Inspect the reconstituted solution visually for particulate matter and discoloration after reconstitution and prior to administration.
- Withdraw the prescribed dose of the reconstituted solution from the vial and administer as an intravenous injection over 30 to 60 seconds, as shown in Table 1. Discard the unused portion.
- Store the reconstituted solution at room temperature. *Discard after 8 hours.*
- For single use only; discard unused portion.

For Intravenous Infusion

- Reconstitute Sincalide for Injection aseptically by adding 5 mL of Sterile Water for Injection USP to the vial.
- After reconstitution, withdraw the prescribed dose of the solution from the vial. Discard unused portion.
- Dilute the reconstituted solution in 30 mL or 100 mL of 0.9% Sodium Chloride Injection USP, depending on the indication, as described in Table 1.
- Inspect the Sincalide solutions visually for particulate matter and discoloration after reconstitution, dilution and prior to administration.
- Store the diluted solution at room temperature. *Discard after 1 hour*

3 DOSAGE FORMS AND STRENGTHS

For injection: 5 mcg of sincalide as a lyophilized white to off-white cake or powder for reconstitution in a single-dose vial.

4 CONTRAINDICATIONS

Sincalide for Injection is contraindicated in patients with:

- a history of a hypersensitivity reaction to sulfites or sincalide. Serious hypersensitivity reactions have included anaphylaxis and anaphylactic shock [see Warnings and Precautions (5.1), Adverse Reactions (6)].
- intestinal obstruction.

5 WARNINGS AND PRECAUTIONS

5.1 Anaphylaxis, Anaphylactic Shock and Other Serious Hypersensitivity Reactions

Contains sodium metabisulfite [see Description (11)], a sulfite that may cause allergictype reactions including anaphylactic symptoms and life-threatening or less severe asthmatic episodes in certain susceptible people. The overall prevalence of sulfite sensitivity in the general population is unknown and probably low. Sulfite sensitivity is seen more frequently in asthmatic than in nonasthmatic people.

In postmarketing experience, anaphylaxis, anaphylactic shock and other serious hypersensitivity reactions have been reported during and within one hour following administration of sincalide [see Adverse Reactions (6)].

Sincalide for Injection is contraindicated in patients with a history of hypersensitivity to sulfites. Due to the potential for anaphylaxis, appropriate medical support should be readily available when Sincalide for Injection is administered. If anaphylaxis or other hypersensitivity reactions occur, immediately discontinue the infusion and initiate appropriate medical treatment. Observe patients closely during and after the infusion. Do not reinitiate Sincalide for Injection in patients who have experienced symptoms of hypersensitivity [see Contraindications (4)].

5.2 Evacuation of Gallstones

Stimulation of gallbladder contraction in patients with small gallbladder stones could lead to the evacuation of the stones from the gallbladder, resulting in their lodging in the cystic duct or in the common bile duct.

5.3 Gastrointestinal Adverse Reactions with Intravenous Injection

Administration of Sincalide for Injection as an intravenous injection may cause adverse reactions such as nausea, vomiting, abdominal pain or cramping, dizziness, and flushing *[see Adverse Reactions (6)]*. These reactions are generally transient. To reduce the risk of adverse reactions with intravenous injection when used to simulate contraction of the gallbladder or accelerate transit of a barium meal through the small intestine, administer Sincalide for Injection as an intravenous infusion over 50 or 30 minutes, respectively *[see Dosage and Administration (2.1)]*.

5.4 Preterm Labor or Spontaneous Abortion

Based on limited human data and mechanism of action, advise pregnant patients that Sincalide for Injection may cause preterm labor or spontaneous abortion [see Use in Specific Populations (8.1)].

6 ADVERSE REACTIONS

The following clinically significant adverse reactions are described elsewhere in labeling:

- Anaphylaxis, anaphylactic shock, and other serious hypersensitivity reactions [see Warnings and Precautions (5.1)]
- Evacuation of gallstones [see Warnings and Precautions (5.2)]
- Adverse reactions with intravenous injection [see Warnings and Precautions (5.3)]
- Preterm labor or spontaneous abortion [see Warnings and Precautions (5.4)]

The following adverse reactions associated with the use of sincalide were identified in clinical trials or postmarketing reports. Because these reactions were reported voluntarily from a population of uncertain size, it is not always possible to estimate their frequency, reliably, or to establish a causal relationship to drug exposure.

The most frequent adverse reactions (20% or greater) are gastrointestinal: abdominal

discomfort or pain, and nausea; these may not necessarily indicate an abnormality of the biliary tract unless there is other clinical or radiologic evidence of disease.

Less common adverse reactions include:

Hypersensitivity reactions: anaphylaxis and anaphylactic shock, hypotension, throat tightness, bradycardia, shortness of breath, nausea, abdominal cramping, diaphoresis, hives, rash, itching; and numbness of face, lips and eyes [see Contraindications (4)].

Neurological reactions: seizures, headache.

Vasovagal reactions: dizziness, loss of consciousness, nausea, diaphoresis, syncope and hypotension (generally self-limiting).

Other: nausea, vomiting, flushing, hypertension, urge to defecate, diarrhea, sneezing.

7 DRUG INTERACTIONS

7.1 Drugs that Affect Gallbladder Motility or Contractile Response

Drugs that may stimulate or inhibit gallbladder motility or contractile response, may interfere with the response to sincalide. Consider discontinuing these drugs prior to administration of Sincalide for Injection, when used to simulate contraction of the gallbladder.

8 USE IN SPECIFIC POPULATIONS

8.1 Pregnancy

<u>Risk Summary</u>

Based on limited human data and mechanism of action, Sincalide for Injection may cause preterm labor or spontaneous abortion [see Warnings and Precautions (5.4)]. Limited available data with Sincalide for Injection are insufficient to inform a drug-associated risk of adverse developmental outcomes. In animal embryo-fetal development studies in which sincalide was administered to hamsters and rats during the period of organogenesis, no effects were seen at doses comparable to the maximum recommended clinical dose on a mg/kg basis. However, in a prenatal development study in which rats were administered sincalide during organogenesis through parturition, decreased weight gain and developmental delays were observed at a dose 122 times higher than the maximum recommended human dose based on body surface area.

The estimated background risk of major birth defects and miscarriage for the indicated population is unknown. All pregnancies have a background risk of birth defect, loss, or other adverse outcomes. In the U.S. general population, the estimated background risk of major birth defects and miscarriage in clinically recognized pregnancies is 2 to 4% and 15 to 20%, respectively.

<u>Data</u>

Animal Data

There were no effects on embryo-fetal development in hamsters when sincalide was administered subcutaneously at 250 or 750 ng/kg during organogenesis (Gestation

Days 7 to 13) at doses up to 0.8 times the maximum recommended dose of 120 ng/kg on a body surface area basis. No effects on embryo-fetal development were observed in Sprague-Dawley rats at subcutaneous doses of 250, 450, or 750 ng/kg from Gestation Days 6 to16, representing 1.0 time the maximum recommended human dose on a body surface area basis. In a separate study at a higher dose of 90 mcg/kg administered subcutaneously to CFY rats from Gestation Day 10 through parturition (representing 122 times the maximum recommended human dose on a body surface area basis), offspring showed decreased growth, behavioral changes, and developmental delays.

8.2 Lactation

<u>Risk Summary</u>

There are no data regarding the presence of sincalide in human or animal milk, the effects on the breastfed infant, or the effects on milk production. The developmental and health benefits of breastfeeding should be considered along with the mother's clinical need for Sincalide for Injection and any potential adverse effect on the breastfed infant from Sincalide for Injection or from the underlying condition.

8.4 Pediatric Use

The safety and effectiveness in pediatric patients have not been established.

<u>Animal Data</u>

Direct injection of sincalide in neonatal rats reduced milk consumption with the youngest rats exhibiting the greatest sensitivity to this effect. Although safety margins relative to maternal doses cannot be calculated since rat pups were injected directly, the safety margin in the youngest rat pups was less than 0.1 on a body surface area bases compared to the maximum adult clinical dose. At higher doses administered subcutaneously in neonatal rats, transient behavioral changes and small effects on physical developmental milestones such as ear opening, eye opening, and incisor appearance were observed (at doses 10 to 200-fold higher than the maximum recommended human dose on a body surface area basis).

8.5 Geriatric Use

Clinical studies of sincalide did not include sufficient numbers of subjects aged 65 and over to determine whether they respond differently from younger subjects.

10 OVERDOSAGE

In the event of an overdose, symptoms related to vagal stimulation, such as gastrointestinal symptoms (abdominal cramps, nausea, vomiting and diarrhea), hypotension with dizziness or fainting may occur. Overdosage symptoms should be treated symptomatically and should be of short duration.

A single bolus intravenous injection of 0.05 mcg/kg (approximately 2 to 3 times the human dose of 0.02 mcg/kg), sincalide caused hypotension and bradycardia in dogs. In addition, higher doses injected intravenously once or repeatedly in dogs caused syncope and ECG changes (approximately 5 times the human dose of 0.02 mcg/kg). These effects were attributed to sincalide-induced vagal stimulation in that all were prevented by pretreatment with atropine or bilateral vagotomy.

11 DESCRIPTION

Sincalide for Injection is a cholecystopancreatic-gastrointestinal hormone for parenteral administration. The agent is a synthetically-prepared C-terminal octapeptide of cholecystokinin.

Each single-dose vial of sincalide provides a sterile nonpyrogenic lyophilized white to offwhite cake or powder consisting of 5 mcg sincalide with 30 mg arginine hydrochloride, 15 mg lysine hydrochloride,170 mg mannitol, 4 mg methionine, 2 mg pentetic acid, and 0.04 mg sodium metabisulfite.

The pH is adjusted to 6.5 to 7.5 with hydrochloric acid and/or sodium hydroxide prior to lyophilization. Sincalide is designated chemically as $L-\alpha$ -aspartyl-O- sulfo-L-tyrosyl-L-methionylglycyl-L-tryptophyl-L-methionyl- $L-\alpha$ -aspartyl-L-phenylalaninamide.

Graphic formula:



12 CLINICAL PHARMACOLOGY

12.1 Mechanism of Action

When injected intravenously, Sincalide stimulates gallbladder contraction and reduction in size. The evacuation of bile that results is similar to that which occurs physiologically in response to endogenous cholecystokinin. Sincalide also stimulates pancreatic secretion and intestinal motility causing pyloric contraction and slows gastric emptying.

Concurrent administration of sincalide with secretin increases both the volume of pancreatic secretion and the output of bicarbonate and enzymes. This combined effect of secretin and sincalide permits the assessment of specific pancreatic function through measurement and analysis of the duodenal aspirate.

12.2 Pharmacodynamics

Following an intravenous (bolus) injection of 0.02 mcg/kg sincalide, maximal contraction of the gallbladder occurred in 5 to 15 minutes. Sincalide reduced gallbladder radiographic size by at least 40%, which is generally considered satisfactory contraction.

13 NONCLINICAL TOXICOLOGY

13.1 Carcinogenesis, Mutagenesis, Impairment of Fertility

Long-term studies in animals have not been performed to evaluate carcinogenic or mutagenic potential, or possible impairment of fertility in males or females.

16 HOW SUPPLIED/STORAGE AND HANDLING

Sincalide for Injection is supplied as 5 mcg of sincalide as a lyophilized white to off-white cake or powder for reconstitution in a single-dose vial; in packages of 5 vials (NDC 72266-248-05).

Store at 20°C to 25°C (68°F to 77°F); excursions permitted to 15°C to 30°C (59°F to 86°F) [See USP Controlled Room Temperature].

17 PATIENT COUNSELING INFORMATION

Anaphylaxis, Anaphylactic Shock and Other Serious Hypersensitivity Reactions

Inform patients serious hypersensitivity reactions, including anaphylaxis and anaphylactic shock have been reported during or following administration of Sincalide for Injection. Advise patients to report immediately to a healthcare provider if they experience symptoms of a hypersensitivity reaction [see Warnings and Precautions (5.1)].

Gastrointestinal Adverse Reactions

Advise patients that Sincalide for Injection may cause transient gastrointestinal symptoms [see Warnings and Precautions (5.3)].

<u>Pregnancy</u>

Advise pregnant women of the potential risk for preterm labor and spontaneous abortion [see Warnings and Precautions (5.4), Use in Specific Populations (8.1)].

Distributed by:

Fosun Pharma USA Inc. Princeton, NJ 08540 Made in India.

1313000792-01

Principal Display Panel

<u>Vial Label</u> 1 Single Dose Vial NDC 72266-248-01 Sincalide for Injection 5 mcg/vial For Intravenous Use



Carton Label

5 Single Dose Vial NDC 72266-248-05

Sincalide for Injection

5 mcg/vial

For Intravenous Use

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NDC 72266-248.05 Sincalide for Injection 5 mcg/vial	Ŗ. Only	Each vial contains a strole, lyophiload powder providing 5 mog sincustie urb 30 mg argaine hydrocholode, 15 mg ynithe hydrocholode, 17 mg prentice and and 10 kin godan. To mg prentice and and 10 kin godan methaluttis pri adjusted to 5 m 7 sinch hydrochol with the more constituted and a lind of their Water for injection USP, each mL, contains 1 mg sincidia: Recommended Dozage: See Prescring Information.	NDC 72266-248-05 Sincalide for Injection 5 mcg/vial	B _k Only	Distributed by: Fosun Pharma USA (nc. Princeton, NJ 08540 Made in KDDA Code No.: AP/DRUGS/103/97
For Intravenous Use 5 Vials FOSUN PHARMA	Single-Dose Vials Discard Unused Portion	Store at 2010 to 2510 (8111 fto 7717), experiment permitted between 1510 to 3010 (8111 fto 811) (560 etc) Controlled Room Temperature) Store the executitude doublon at room temperature. Discard effer 8 hourt. Store the eliquide doublon at room temperature. Discard effer 1 hour.	For Intravenous Use 5 Vials FOSUN PHARMA	Single-Dose Vials Discard Unused Portion	(01)00372266248053

Vial contains a sterile, lyophilized powder providing 5 mcg sincalide (see insert for inactive ingredients); pH adjusted to 6.5 to 7.5 with hydrochloric acid and/or sodium hydroxide.

Recommended Dosage: See Prescribing Information Single-Dose Vial. Discard Unused Portion.

Store at 20°C to 25°C (68°F to 77°F), excursions permitted between 15°C to 30°C (59°F to 86°F) [See USP Controlled Room Temperature]

SINCALIDE sincalide injection, powder, ly	ophilized, for solution		
Product Information			
Product Type	HUMAN PRESCRIPTION DRUG	ltem Code (Source)	NDC:72266-248
Route of Administration	INTRAVENOUS		

	ctive Ingredi	,			
		Ingredient Name	Basis of Stre	ength	Strength
SII	NCALIDE (UNII: M	03GIQ7Z6P) (SINCALIDE - UNII:M03GIQ7Z6P)	SINCALIDE		5 ug in 5 ml
In	active Ingre	dients			
		Ingredient Name		Str	ength
MA	ANNITOL (UNII: 30	DWL53L36A)	170 n	ng in 5 i	mL
AR	GININE HYDROC	HLORIDE (UNII: F7LTH1E20Y)	30 m	gin 5 m	۱L
LY	SINE HYDROCHI	ORIDE (UNII: JNJ23Q2COM)	15 m	gin 5 m	۱L
ME	THIONINE (UNII:	AE28F7PNPL)	4 mg	in 5 mL	-
PE	NTETIC ACID (U	NII: 7A314HQM0I)	2 mg	in 5 mL	-
~ ~				0.04 mg in 5 mL	
50	UUUM METABIS	ULFITE (UNII: 4VON5FNS3C)	0.04 1	mg in 5	mL
	ackaging				
		ULFITE (UNII: 4VON5FNS3C) Package Description	0.04 Marketing Start Date		mL rketing End Date
Pa #	ackaging		Marketing Start		keting End
Pa #	ackaging Item Code NDC:72266-248-	Package Description 5 in 1 PACKAGE	Marketing Start Date		keting End
P a #	Ackaging Item Code NDC:72266-248- 05 NDC:72266-248-	Package Description 5 in 1 PACKAGE 5 mL in 1 VIAL; Type 0: Not a Combination	Marketing Start Date		keting End
Pa # 1	Item Code NDC:72266-248- 05 NDC:72266-248- 01	Package Description 5 in 1 PACKAGE 5 mL in 1 VIAL; Type 0: Not a Combination	Marketing Start Date		keting End
Pa # 1	Item Code NDC:72266-248- 05 NDC:72266-248- 01	Package Description 5 in 1 PACKAGE 5 mL in 1 VIAL; Type 0: Not a Combination Product	Marketing Start Date	Mar	keting End

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Revised: 5/2024

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