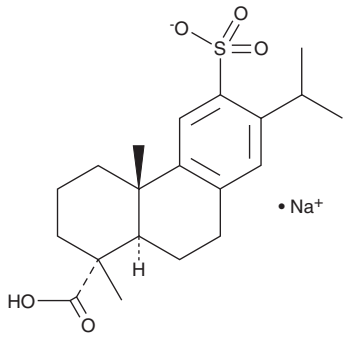
PRODUCT INFORMATION

Ecabet (sodium salt)

Item No. 28013

CAS Registry No.:	86408-72-2
Formal Name:	(1R,4aS,10aR)-1,2,3,4,4a,9,10,10a-octahydro-1,4a-dimethyl-7-(1-methylethyl)-6-sulfo-1-phenanthrenecarboxylic acid, monosodium salt
Synonym:	TA-2711
MF:	$C_{20}H_{27}O_5S \bullet Na$
FW:	402.5
Purity:	≥98%
UV/Vis.:	λ_{max}: 222 nm
Supplied as:	A crystalline solid
Storage:	-20°C
Stability:	≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Ecabet (sodium salt) is supplied as a crystalline solid. A stock solution may be made by dissolving the ecabet (sodium salt) in the solvent of choice, which should be purged with an inert gas. Ecabet (sodium salt) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of ecabet (sodium salt) in these solvents is approximately 3, 30, and 25 mg/ml, respectively.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of ecabet (sodium salt) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of ecabet (sodium salt) in PBS, pH 7.2, is approximately 3 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Ecabet is an antiulcerative and gastroprotective agent.[1-4] It reduces the viability of *H. pylori* grown under urea-supplemented acidic conditions in a concentration-dependent manner.[1] Ecabet inhibits *H. pylori* urease activity in a pH-dependent manner (IC_{50}s = 2.1-2.6 and >16 mg/ml at pH values of 5 and 8, respectively). It inhibits adhesion of *H. pylori* to MKN-28 cells when used at concentrations of 1 and 2 mg/ml.[3] *In vivo*, ecabet (25 and 100 mg/kg, p.o.) increases levels of prostaglandin E_2 (PGE_2; Item No. 14010) in rat gastric mucosa.[3] It inhibits formation of hemorrhagic lesions in esophageal mucosa and reduces gastric juice pepsin activity in a rat model of reflux induced by fore-stomach and pyloric ligation when administered at a dose of 30 mg/kg.[4]

References

1. Ito, Y., Shibata, K., Hongo, A., *et al.* Ecabet sodium, a locally acting antiulcer drug, inhibits urease activity of *Helicobacter pylori*. *Eur. J. Pharmacol.* **345(2)**, 193-198 (1998).
2. Hayashi, S., Sugiyama, T., Yachi, A., *et al.* Effect of ecabet sodium on *Helicobacter pylori* adhesion to gastric epithelial cells. *J. Gastroenterol.* **32(5)**, 593-597 (1997).
3. Kinoshita, M., Iwasaki, H., Yasoshima, A., *et al.* Effects of ecabet sodium (TA-2711), a new antiulcer agent, on gastrointestinal mucosal prostanoid production and morphology in rats. *Biol. Pharm. Bull.* **16(12)**, 1220-1225 (1993).
4. Okuyama, K., Saito, N., Kume, E., *et al.* Ecabet sodium prevents esophageal lesions induced by the reflux of gastric juice in rats. *Inflammopharmacology* **15(2)**, 90-94 (2007).

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