

## Product datasheet

# Esomeprazole sodium, H<sup>+</sup>/ K<sup>+</sup>-ATPase (proton pump) inhibitor ab120500

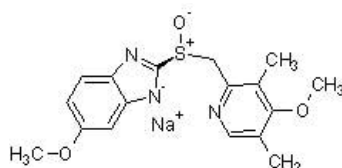
[2 Images](#)

### Overview

<b>Product name</b>	Esomeprazole sodium, H <sup>+</sup> / K <sup>+</sup> -ATPase (proton pump) inhibitor
<b>Description</b>	H <sup>+</sup> / K <sup>+</sup> -ATPase (proton pump) inhibitor
<b>Biological description</b>	H <sup>+</sup> / K <sup>+</sup> -ATPase (proton pump) inhibitor (IC <sub>50</sub> = 2.3 μM). <i>S</i> -enantiomer of omeprazole. Attenuates intestinal mucosal barrier damage and can promote healing of gastric lesions in rats. Also inhibits Cytochrome P450 2C19 (CYP2C9), CYP2C19 and CYP3A4 (K <sub>i</sub> values are 81.5, 8.6 and 46.6 μM, respectively).

**CAS Number** 161796-78-7

### Chemical structure



### Properties

<b>Chemical name</b>	6-Methoxy-2-[( <i>S</i> )-[(4-methoxy-3,5-dimethyl-2-pyridinyl)methyl]sulfinyl]-1 <i>H</i> -benzimidazole sodium salt
<b>Molecular weight</b>	367.40
<b>Molecular formula</b>	C <sub>17</sub> H <sub>18</sub> N <sub>3</sub> NaO <sub>3</sub> S
<b>PubChem identifier</b>	23674541
<b>Storage instructions</b>	Store at -20°C. Store under desiccating conditions. The product can be stored for up to 12 months.
<b>Solubility overview</b>	Soluble in water to 100 mM, in ethanol to 100 mM and in DMSO to 100 mM
<b>Handling</b>	Wherever possible, you should prepare and use solutions on the same day. However, if you need to make up stock solutions in advance, we recommend that you store the solution as aliquots in tightly sealed vials at -20°C. Generally, these will be useable for up to one month. Before use, and prior to opening the vial we recommend that you allow your product to equilibrate to room temperature for at least 1 hour.  Toxic, refer to SDS for further information.

Need more advice on solubility, usage and handling? Please visit our [frequently asked questions \(FAQ\) page](#) for more details.

## SMILES

[Na+].Cc3c(OC)c(C)cnc3CS(=O)c1[n-]c2cc(ccc2n1)OC

## Source

Synthetic

## Applications

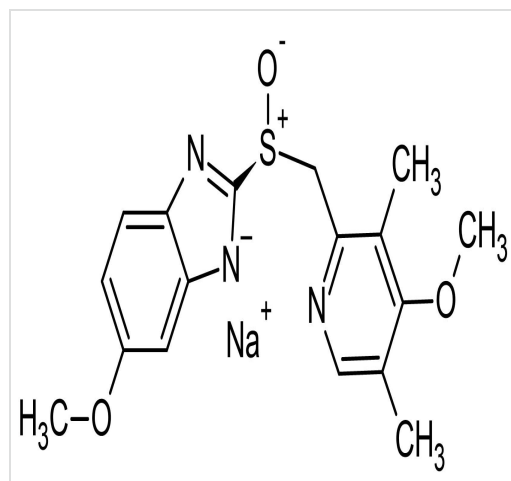
### The Abpromise guarantee

Our [Abpromise guarantee](#) covers the use of ab120500 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

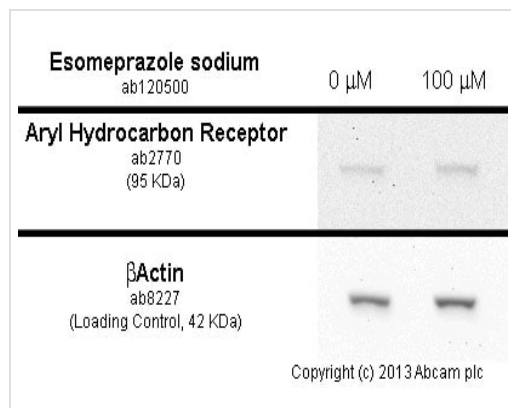
Application	Abreviews	Notes
Functional Studies		Use at an assay dependent concentration.

## Images



2D chemical structure image of ab120500, Esomeprazole sodium, H<sup>+</sup>/K<sup>+</sup>-ATPase (proton pump) inhibitor

Chemical Structure - Esomeprazole sodium, H<sup>+</sup>/K<sup>+</sup>-ATPase (proton pump) inhibitor (ab120500)



Functional Studies - Esomeprazole sodium, H<sup>+</sup>/K<sup>+</sup>-ATPase (proton pump) inhibitor (ab120500)

MDA-MB-231 cells were incubated at 37°C for 6h with vehicle control (0 μM) and 100 μM of esomeprazole sodium (ab120500). Increased expression of aryl hydrocarbon receptor ([ab2770](#)) correlates with an increase in esomeprazole sodium concentration, as described in literature.

Whole cell lysates were prepared with RIPA buffer (containing protease inhibitors and sodium orthovanadate), 20 μg of each were loaded on the gel and the WB was run under reducing conditions. After transfer the membrane was blocked for an hour using 3% milk before being incubated with [ab2770](#) at 2 μg/ml and [ab8226](#) at 1 μg/ml overnight at 4°C. Antibody binding was detected using an anti-mouse antibody conjugated to HRP ([ab97040](#)) at 1/10000

dilution and visualised using ECL development solution.

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES, NOT FOR USE IN HUMANS"

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