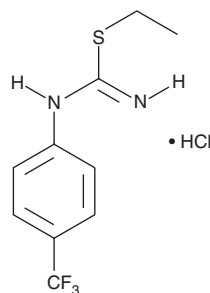


# PRODUCT INFORMATION

## S-ethyl N-[4-(trifluoromethyl)phenyl] Isothiourea (hydrochloride)

Item No. 81280

**CAS Registry No.:** 163490-78-6  
**Formal Name:** N-[4-(trifluoromethyl)phenyl]-carbamimidithioic acid, ethyl ester, monohydrochloride  
**Synonym:** EPIT  
**MF:** C<sub>10</sub>H<sub>11</sub>F<sub>3</sub>N<sub>2</sub>S • HCl  
**FW:** 284.7  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 245 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

S-ethyl N-[4-(trifluoromethyl)phenyl] Isothiourea (EPIT) (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the EPIT (hydrochloride) in the solvent of choice, which should be purged with an inert gas. EPIT (hydrochloride) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of EPIT (hydrochloride) in these solvents is approximately 55, 33, and 54 mg/ml, respectively.

EPIT (hydrochloride) is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, EPIT (hydrochloride) should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. EPIT (hydrochloride) has a solubility of approximately 1 mg/ml in a 1:3 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

EPIT is a selective, competitive inhibitor of nNOS having a K<sub>i</sub> of 0.32 μM for the purified human enzyme. EPIT exhibits 115-fold and 29-fold selectivity for nNOS compared to iNOS and eNOS, respectively. It exhibits reduced inhibitory potency in whole-cell assays, possibly due to reduced intracellular uptake.<sup>1</sup>

### Reference

1. Shearer, B.G., Lee, S., Oplinger, J.A., *et al.* Substituted N-phenylisothioureas: Potent inhibitors of human nitric oxide synthase with neuronal isoform selectivity. *J. Med. Chem.* **40**(12), 1901-1905 (1997).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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