

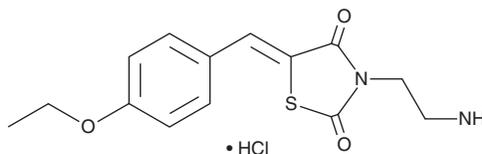
# PRODUCT INFORMATION



## ERK Inhibitor

Item No. 15944

**CAS Registry No.:** 1049738-54-6  
**Formal Name:** 3-(2-aminoethyl)-5-[(4-ethoxyphenyl)methylene]-2,4-thiazolidinedione, monohydrochloride  
**Synonym:** Extracellular Regulated Kinase Inhibitor  
**MF:** C<sub>14</sub>H<sub>16</sub>N<sub>2</sub>O<sub>3</sub>S • HCl  
**FW:** 328.8  
**Purity:** ≥95%  
**UV/Vis.:** λ<sub>max</sub>: 238, 354 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

ERK inhibitor is supplied as a crystalline solid. A stock solution may be made by dissolving the ERK inhibitor in the solvent of choice, which should be purged with an inert gas. ERK inhibitor is soluble in the organic solvent DMSO at a concentration of approximately 2 mg/ml.

### Description

ERK inhibitor is a cell-permeable inhibitor that binds ERK2 near its docking domain ( $K_D = 5 \mu\text{M}$ ).<sup>1</sup> This prevents its interaction with protein substrates without inhibiting catalytic activity.<sup>1</sup> ERK inhibitor blocks ERK-specific phosphorylation of ribosomal S6 kinase-1 and ternary complex factor Elk-1 but does not affect ERK1/2 phosphorylation by MEK1/2.<sup>1</sup> Presumably through its effects on ERK, ERK inhibitor completely prevents proliferation of HeLa cells ( $IC_{50} = 15\text{-}20 \mu\text{M}$ ), A549 lung carcinoma cells ( $IC_{50} = 25 \mu\text{M}$ ), Sum-159 estrogen receptor-negative breast cancer cells and HT1080 fibrosarcoma cells.<sup>1</sup>

### Reference

1. Hancock, C.N., Macias, A., Lee, E.K., *et al.* Identification of novel extracellular signal-regulated kinase docking domain inhibitors. *J. Med. Chem.* **48**(14), 4586-4595 (2005).

#### 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.

#### WARRANTY AND LIMITATION OF REMEDY

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