

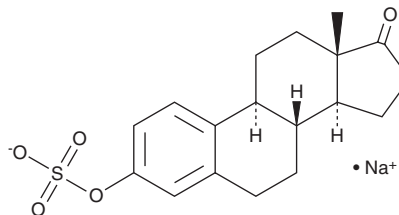
# PRODUCT INFORMATION



## Estrone 3-sulfate (sodium salt)

Item No. 36989

**CAS Registry No.:** 438-67-5  
**Formal Name:** 3-(sulfooxy)-estra-1,3,5(10)-trien-17-one, monosodium salt  
**Synonyms:** Estrone sulfate, NSC 18313  
**MF:**  $C_{18}H_{21}O_5S \cdot Na$   
**FW:** 372.4  
**Purity:**  $\geq 95\%$   
**Supplied as:** A solid (stabilized with TRIS, 35% w/w)  
**Storage:**  $-20^{\circ}C$   
**Stability:**  $\geq 4$  years



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

### Laboratory Procedures

Estrone 3-sulfate (sodium salt) is supplied as a solid. A stock solution may be made by dissolving the estrone 3-sulfate (sodium salt) in the solvent of choice, which should be purged with an inert gas. Estrone 3-sulfate (sodium salt) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of estrone 3-sulfate (sodium salt) in ethanol is approximately 2 mg/ml and approximately 30 mg/ml in DMSO and DMF.

Estrone 3-sulfate (sodium salt) is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, estrone 3-sulfate (sodium salt) should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Estrone 3-sulfate (sodium salt) has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

Estrone 3-sulfate is an endogenous steroid that is converted into estrone (Item No. 10006485) *in vivo*.<sup>1</sup> It inhibits organic anion transport polypeptide 1B1 (OATP1B1) and is selective for OATP1B1 over OATP1B3 ( $IC_{50}$ s = 0.06 and 19.3  $\mu M$ , respectively).<sup>2</sup> Formulations containing estrone 3-sulfate have been used in the treatment of menopausal symptoms and for the prevention of osteoporosis in high-risk populations.

### References

1. Banerjee, N., Fonge, H., Mikahil, A., *et al.* Estrone-3-sulphate, a potential novel ligand for targeting breast cancers. *PLoS One* **8**(5), e64069 (2013).
2. Gui, C., Obaidat, A., Chaguturu, R., *et al.* Development of a cell-based high-throughput assay to screen for inhibitors of organic anion transporting polypeptides 1B1 and 1B3. *Curr. Chem. Genomics* **4**, (2010).

#### 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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