DATA SHEET





Anderson-Evans polyoxotungstate



olyhedral (A) and ball and stick (B) representation of [TeWeO2.1⁶⁻ wi

Polyhedral (A) and ball and stick (B) representation of $[TeW_6O_{24}]^{6-}$ with different coordination modes of the oxygen atoms in panel B.^[1] Figure used by courtesy of Prof. Annette Rompel, University of Vienna.

For in vitro use only!

Shipping: shipped at ambient temperature

Storage Conditions: store at ambient temperature

Shelf Life: 12 months

Molecular Formula: Na₆[TeW₆O₂₄] x 22 H₂O

Molecular Weight: 2148,90 g/mol

Solubility: 100 mM in water

Dissolve 1 g $Na_6 [\mbox{TeW}_6 O_{24}] \, x$ 22 $\mbox{H}_2 O$ in 4,65 ml water to achieve a 100 mM stock solution.

Description:

The Anderson-Evans polyoxotungstate $[TeW_6O_{24}]^{6-}$ (TEW) is a universal and flexible additive for protein crystallization. With its planar structure and high negative charge, it has proven to promote crystal contacts, improve crystal quality and further provides a valuable anomalous signal for phasing due to 6 tungsten atoms^[1].

Related Products:

XP Screen, #CS-350

Selected References:

[1] Bijelic *et al.* (2017) Ten Good Reasons for the Use of the Tellurium-Centered Anderson-Evans Polyoxotungstate in Protein Crystallography. *Acc. Chem. Res.* **50**:1441.

[2] Molitor *et al.* (2016) Aurone synthase is a catechol oxidase with hydroxylase activity and provides insights into the mechanism of plant polyphenol oxidases. *Proc. Natl. Acad. Sci.* **113**:E1806.

[3] Molitor *et al.* (2016) *In situ* formation of the first proteinogenically functionalized [TeW₆O₂₄O₂(Glu)]⁷⁻ structure reveals unprecedented chemical and geometrical features of the Anderson-type cluster. *Chem. Commun.* **52**:12286.

[4] Molitor *et al.* (2015) Crystallization and preliminary crystallographic analysis of latent, active and recombinantly expressed aurone synthase, a polyphenol oxidase, from *Coreopsis grandiflora. Acta Cryst. F* **71**:746.
[5] Bijelic *et al.* (2015) Hen Egg-White Lysozyme Crystallisation: Protein Stacking and Structure Stability Enhanced by a Tellurium(VI)-Centred Polyoxotungstate. *ChemBioChem* **16**:233.

[6] Mauracher *et al.* (2014) Latent and active *ab*PPO4 mushroom tyrosinase cocrystallized with hexatungstotellurate(VI) in a single crystal. *Acta Cryst. D* **70**:2301.

[7] Mauracher *et al.* (2014) Crystallization and preliminary X-ray crystallographic analysis of latent isoform PPO4 mushroom (*Agaricus bisporus*) tyrosinase. *Acta Cryst. F* **70**:263.

