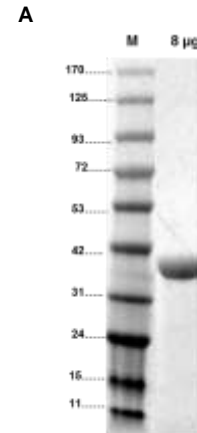
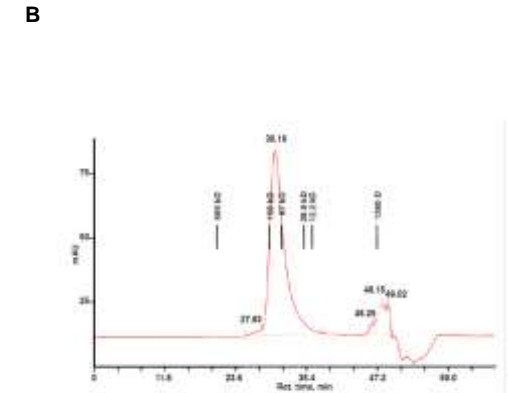


## Recombinant *E. coli*, Taurine Dioxygenase (TauD)

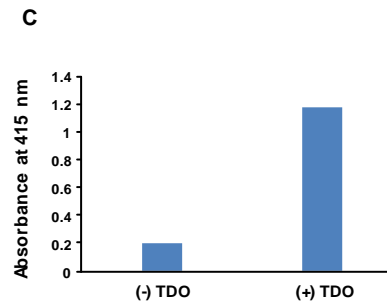
<b>CATALOG NO:</b>	P1071-200	200 µg
	P1071-500	500 µg
	P1071-2000	2 mg
<b>ALTERNATE NAMES:</b>	TauD, 2-aminoethanesulfonate dioxygenase, Sulfate starvation-induced protein 3, SSI3	
<b>SOURCE:</b>	<i>E. coli</i>	
<b>PURITY:</b>	≥90% by SDS-PAGE	
<b>MOL. WEIGHT:</b>	34.3 kDa, His tagged protein	
<b>FORM</b>	Liquid	
<b>CONCENTRAION:</b>	2 mg/ml	
<b>FORMULATION:</b>	50 mM Sodium phosphate, pH 7.0 and 30% glycerol	
<b>STORAGE CONDITIONS:</b>	Aliquot and store at -20°C. Avoid repeated freeze-thaw cycles.	
<b>DESCRIPTION:</b>	Taurine dioxygenase (TauD) is a Fe(II) and α-ketoglutaric acid-dependent dioxygenase, which enables <i>E.coli</i> to use taurine as a sulfur source. The oligomeric state of the enzyme from <i>E.coli</i> is reported both as a dimer and tetramer. It contains a 2-His, 1-carboxylate facial triad, which is present in most members of the family of Fe(II) α-KG-dependent enzymes. TauD catalyzes the conversion of the amino acid taurine (2-aminoethane-1-sulfonic acid) to sulfite and aminoacetaldehyde.	
<b>APPLICATIONS:</b>	Recombinant TauD can be used to assay the biologically important amino acid taurine.	
<b>SPECIFIC ACTIVITY:</b>	The enzyme has a specific activity of ≥170 mU/mg measured by using BioVision's Taurine Assay Kit ( <b>Cat. No. K988-100</b> )	
<b>UNIT DEFINITION:</b>	One unit is the amount of enzyme that converts 1 µmole of taurine to sulfite per minute at pH 6.9 at 30 °C.	



**Fig A. SDS-PAGE (4-20%) of active Taurine dioxygenase:** Recombinant Protein loaded under reducing conditions and stained with Coomassie Blue.



**Fig B. Size exclusion chromatography of TauD:** SEC analysis of TauD on a Superose 12 HR 10/30 column at 0.4 ml/min in 50 mM sodium phosphate, 0.3 M NaCl pH 7.5



**Fig C. Activity of active TauD:** In the assay Sulfite production from 250 µM Taurine by 6 µg of TauD is measured by Sulfite probe at 30 min time point using BioVision Taurine Assay Kit (**Cat. No. K988-100**)

**RELATED PRODUCT:**

- Taurine Assay Kit (**Cat. No. K988-100**)

**FOR RESEARCH USE ONLY! Not to be used on humans.**

