Recombinant ESTD protein (His tag)

Catalog Number	544377
Synonyms	FGH; Esterase D; Methylumbelliferyl-acetate deacetylase
Species	Human
Expression System	E. coli
Accession	P10768
Molecular Weight	Predictes a molecular mass of 32.99 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 33 kDa band.

Product Information

Sequence Region	2-282
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>87%, by SDS-PAGE with Coomassie Brilliant Blue staining.
Endotoxin	Not tested.
Activity	Not tested.
Stability	Samples are stable for up to twelve months from date of receipt at -70℃
Protein Construction	DNA encoding 2-282 aa (P10768) were fused with 6His tag.

Storage & Handling

Reconstitution	Reconstitute at 0.25 μg/μl in sterile water for short-term storage. Reconstitution with 50% glycerol solution is recommended for longer term storage (see Stability and Storage for more details). If a different concentration is needed for your purposes please adjust the reconstitution volume as required (please note: the ion concentration of the final solution will vary according to the volume used). Note: Centrifuge vial before opening. When reconstituting, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution.
Storage	Store it under sterile conditions at -20℃ to -80℃. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Shipping	In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

Description

Description	Recombinant S-formylglutathione hydrolase (FGH) fragment (residues 2-282), a highly soluble and stable protein unit ideal for structural and biochemical studies. This fragment retains key functional domains, supporting research into formaldehyde detoxification pathways. S-formylglutathione hydrolase (FGH), also known as Esterase D, is a serine hydrolase critical for formaldehyde detoxification in humans. It localizes to the cytoplasm and cytoplasmic vesicles, where it catalyzes the hydrolysis of S-formylglutathione, contributing to cellular protection against formaldehyde-induced toxicity. The full-length protein's role in metabolic detoxification is supported by experimental evidence from peer-reviewed studies.