Recombinant GSTD1 protein (His tag)

Catalog Number	533181
Synonyms	DDT-dehydrochlorinase
Species	Drosophila melanogaster
Expression System	E. coli
Accession	P20432
Gene ID	41503
Molecular Weight	Predictes a molecular mass of 25.52 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 26 kDa band.

Product Information

Sequence Region	1-209
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>89%, 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 1-209 aa (P20432) 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	This recombinant protein product features a fragment of Glutathione S-transferase D1 (GstD1) from Drosophila melanogaster, encompassing the complete amino acid sequence (residues 1-209). It includes the essential GST N-terminal and C-terminal domains, making it an ideal tool for studying glutathione conjugation, DDT dehydrochlorinase activity, and detoxification mechanisms in research applications. Glutathione S-transferase D1 (EC 2.5.1.18, EC 4.5.1.1) is an enzyme from Drosophila melanogaster that conjugates reduced glutathione to various exogenous and endogenous hydrophobic electrophiles, as supported by studies (PubMed:20417639, PubMed:22082028). It exhibits DDT dehydrochlorinase activity and is implicated in detoxification processes, highlighting its role in cellular defense against electrophilic compounds. The full-length protein's function involves critical interactions for metabolic detoxification, though subcellular localization data is not specified in the provided information.