Recombinant NIT1 protein (His tag)

Catalog Number	548759
Synonyms	dGSH amidase; Nitrilase homolog 1
Species	Human
Expression System	E. coli
Accession	Q86X76
Molecular Weight	Predictes a molecular mass of 32.75 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 33 kDa band.

Product Information

Sequence Region	45-327
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>88%, 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 45-327 aa (Q86X76) 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 Human Deaminated glutathione amidase (dGSH amidase) fragment (residues 45-327) is a high-purity protein designed for studying the CN hydrolase domain. This fragment supports research into metabolite repair mechanisms, apoptosis regulation, and tumor suppressor pathways. Deaminated glutathione amidase, encoded by the NIT1 gene in Homo sapiens, catalyzes the hydrolysis of the amide bond in N-(4-oxoglutarate)-L-cysteinylglycine (deaminated glutathione), a critical metabolite repair reaction that eliminates harmful deaminated glutathione. This enzyme plays a significant role in cell growth and apoptosis, where loss of expression promotes cell proliferation, resistance to DNA damage stress, and increased incidence of NMBA-induced tumors. It exhibits tumor suppressor properties that enhance apoptotic responsiveness in cancer cells, with additive effects to the tumor suppressor activity of FHIT, and serves as a negative regulator of primary T-cells. Subcellular localization varies by isoform: isoform 1 is cytoplasmic, while isoform 2 is mitochondrial, as indicated by UniProtKB data.