Recombinant NIT2 protein (His tag)

Catalog Number	548330
Synonyms	Nitrilase homolog 2
Species	Human
Expression System	E. coli
Accession	Q9NQR4
Molecular Weight	Predictes a molecular mass of 32.26 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 32 kDa band.

Product Information

Sequence Region	1-276
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>85%, 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 1-276 aa (Q9NQR4) 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 Omega-amidase NIT2 (EC 3.5.1.3) Fragment (aa 1-276) is a high-purity protein designed for functional studies. This fragment fully encompasses the CN hydrolase domain, making it an ideal tool for investigating omega-amidase activity and related metabolic pathways. Omega-amidase NIT2, encoded by the NIT2 gene in Homo sapiens, plays a critical role in cellular metabolism by converting potentially toxic intermediates 2-oxoglutaramate and 2-oxosuccinamate into biologically useful metabolites 2-oxoglutarate and oxaloacetate, respectively. This cytoplasmic enzyme helps maintain metabolic balance by eliminating harmful compounds while generating essential metabolic intermediates. The full-length protein's omega-amidase activity has been experimentally validated and is localized to the cytoplasm, where it performs its vital detoxification and metabolic conversion functions.