Recombinant NEUR1 protein (His tag)

Catalog Number	548062
Synonyms	Acetylneuraminyl hydrolase; G9 sialidase; Lysosomal sialidase; N-acetyl-alpha-neuraminidase 1
Species	Human
Expression System	E. coli
Accession	Q99519
Molecular Weight	Predictes a molecular mass of 41.65 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 42 kDa band.

Product Information

Sequence Region	50-415
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 50-415 aa (Q99519) 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 Sialidase-1 (NEU1) Fragment (aa 50-415) is a high-purity, soluble protein designed for structural and biochemical studies. This 366-amino acid fragment retains key functional characteristics of the full-length enzyme, enabling reliable investigation of sialic acid removal mechanisms in glycoconjugates. Sialidase-1 (EC 3.2.1.18), encoded by the NEU1 gene, catalyzes the removal of sialic acid (N-acetylneuraminic acid) moieties from glycoproteins and glycolipids, demonstrating preferential activity toward alpha 2-3 and alpha 2-6 sialyl linkages. The enzyme requires association within a multienzyme complex for full activity. It localizes primarily to lysosomal membranes and the lysosomal lumen, but also appears on plasma membranes and within intracellular vesicles, indicating diverse roles in cellular sialylation processes. This fragment represents a computationally optimized stable region suitable for experimental applications without compromising biological relevance.