Recombinant SIAE protein (His tag)

Catalog Number	548275
Synonyms	SIAE; H-Lse; Sialic acid-specific 9-O-acetylesterase
Species	Human
Expression System	E. coli
Accession	Q9HAT2
Molecular Weight	Predictes a molecular mass of 57.63 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 58 kDa band.

Product Information

Sequence Region	24-523
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>86%, 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 24-523 aa (Q9HAT2) 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 Sialate O-acetylesterase (SIAE) Fragment (residues 24-523) is a high-purity protein preparation ideal for investigating sialic acid modification pathways. This 500-amino acid fragment maintains key structural and functional properties, providing researchers with a stable and soluble tool for enzymatic assays, structural studies, and glycobiology research. Sialate O-acetylesterase (SIAE) is a crucial enzyme that catalyzes the removal of O-acetyl ester groups from position 9 of diacetylated sialate molecules, including both free N-acetyl-9-O-acetylneuraminate (Neu5,9Ac2) in the cytosol and sialylglycoconjugates in lysosomes. Working in concert with sialate-O-acetyltransferase, SIAE helps regulate the balance of acetylated sialoglycoconjugates, which serve as key mediators in critical biological processes including cell-cell interactions, host-pathogen recognition, and tumor antigenicity. The enzyme exhibits distinct subcellular localization patterns, with isoform 1 functioning in lysosomes and isoform 2 operating in the cytoplasm, highlighting its importance in multiple cellular compartments for maintaining sialic acid homeostasis.