Recombinant HDAC2 protein (His tag)

Catalog Number	543312
Synonyms	HD2; Protein deacylase HDAC2
Species	Human
Expression System	E. coli
Accession	Q92769
Molecular Weight	Predictes a molecular mass of 49.18 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 51 kDa band.

Product Information

Sequence Region	1-418
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 1-418 aa (Q92769) 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 product offers a recombinant fragment of Human Histone Deacetylase 2 (HDAC2), encompassing amino acids 1-418. This stable and soluble fragment is ideal for structural studies, enzymatic assays, and biochemical research, facilitating the investigation of HDAC2's role in epigenetic regulation and transcriptional repression. Histone Deacetylase 2 (HDAC2) is a crucial enzyme in epigenetic regulation, catalyzing the deacetylation of lysine residues on core histones (H2A, H2B, H3, and H4), leading to transcriptional repression. It plays a vital role in cell cycle progression, developmental processes, and the formation of multiprotein repressor complexes, such as with MAD, SIN3, YY1, and N-COR. HDAC2 is also a component of the RCOR/GFI/KDM1A/HDAC and NuRD complexes, involved in chromatin remodeling and suppression of genes in blood cell development. Beyond histones, HDAC2 deacetylates non-histone targets like TSHZ3, modulating their transcriptional activity, and functions as a protein-lysine deacylase, removing crotonyl, lactyl, and 2-hydroxyisobutyryl groups. It is primarily localized in the nucleus, with some presence in the cytoplasm, and is implicated in circadian gene regulation and corepression pathways.