Recombinant SIR2 protein (His tag)

Catalog Number	545389
Synonyms	NAD-dependent protein defatty-acylase sirtuin-2; Regulatory protein SIR2 homolog 2; SIR2-like protein 2
Species	Human
Expression System	E. coli
Accession	Q8IXJ6
Molecular Weight	Predictes a molecular mass of 37.53 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 38 kDa band.

Product Information

Sequence Region	40-356
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 40-356 aa (Q8IXJ6) 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 SIRT2 (NAD-dependent protein deacetylase sirtuin-2) Fragment (aa 40-356) – a high-purity, functional protein fragment encompassing the essential deacetylase sirtuin-type domain (aa 57-338). This product is designed for researchers studying epigenetic regulation, cell cycle control, metabolic pathways, and microtubule dynamics, offering a targeted tool for domain-specific functional assays. SIRT2 is a NAD-dependent protein deacetylase and defatty-acylase that plays a pivotal role in modulating diverse biological processes, including cell cycle progression, genomic stability, microtubule dynamics, metabolic networks, and autophagy. It deacetylates histones (e.g., H4K16ac, H3K56ac) and non-histone proteins such as alpha-tubulin, transcription factors (e.g., FOXO1, HIF1A, p53), and metabolic enzymes (e.g., PCK1, G6PD), thereby influencing gene expression, stress responses, and energy homeostasis. SIRT2 localizes to the nucleus, cytoplasm, cytoskeleton, centrosome, and midbody, with dynamic shuttling during cell cycle phases, particularly enriched in chromatin during G2/M transitions. Its involvement in oxidative stress tolerance, adipogenesis, and tumor suppression underscores its significance in cellular physiology and disease research. The provided fragment retains the core deacetylase domain, enabling focused investigations into SIRT2's enzymatic and regulatory functions.