Recombinant ING4 protein (His tag)

Catalog Number	539238
Synonyms	p29ING4
Species	Human
Expression System	E. coli
Accession	Q9UNL4
Molecular Weight	Predictes a molecular mass of 15.42 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 18 kDa band.

Product Information

Sequence Region	1-117
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 1-117 aa (Q9UNL4) 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 Inhibitor of growth protein 4 (p29ING4) fragment (residues 1-117) from Homo sapiens, offering a stable and soluble unit for studying its roles in chromatin acetylation, tumor suppression, and transcriptional regulation. This fragment is ideal for structural and biochemical analyses in cancer and epigenetics research. Inhibitor of growth protein 4 (ING4), encoded by the gene ING4 in humans, is a nuclear protein that functions as a component of HBO1 complexes, specifically mediating acetylation of histone H3 at Lys-14 (H3K14ac) with reduced activity toward histone H4, potentially influencing DNA replication. It plays a critical role in inhibiting tumor progression by modulating transcriptional pathways that regulate cell proliferation, suppressing brain tumor angiogenesis through repression of RELA/NFKB3 target genes, and inhibiting loss of contact inhibition caused by oncogenes like MYC. Additionally, ING4 represses hypoxia-inducible factor (HIF) activity by interacting with HIF prolyl hydroxylase 2 (EGLN1) and can enhance apoptosis under serum starvation conditions. Its subcellular localization is primarily in the nucleus, underscoring its involvement in chromatin-related processes and gene expression regulation.