Recombinant INT2 protein (His tag)

Catalog Number	548211
Synonyms	Int2
Species	Human
Expression System	E. coli
Accession	Q9H0H0
Molecular Weight	Predictes a molecular mass of 48.90 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 50 kDa band.

Product Information

Sequence Region	1-427
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>88%, 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 1-427 aa (Q9H0H0) 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 Integrator complex subunit 2 (Int2) fragment (amino acids 1-427) from Homo sapiens, offering a stable and soluble unit for investigating its critical role in RNA polymerase II transcription termination and transcriptional quality control mechanisms. Integrator complex subunit 2 (Int2), encoded by the gene INTS2 in humans, is a key component of the integrator complex, a multiprotein assembly that regulates RNA polymerase II (Pol II) transcription termination in the promoter-proximal region of genes. This complex acts as a quality checkpoint during transcription elongation by driving premature termination of unfavorably configured transcripts through multiple mechanisms: dephosphorylation of the Pol II C-terminal domain (CTD) and SUPT5H/SPT5, degradation of nascent RNA via endonuclease activity, and promotion of Pol II release from DNA. Additionally, the integrator complex terminates the synthesis of non-coding Pol II transcripts, including enhancer RNAs, small nuclear RNAs, telomerase RNAs, and long non-coding RNAs. Int2 also mediates recruitment of cytoplasmic dynein to the nuclear envelope, likely as part of the integrator complex. The protein localizes to the nucleus, nuclear membrane (as a single-pass membrane protein), and cytoplasm, reflecting its diverse functional roles in transcriptional regulation and cellular organization.