ING4 Protein, Human (His)

Cat. No.:	HY-P74798
Synonyms:	Inhibitor of growth protein 4; p29ING4; ING4; My036
Species:	Human
Source:	E. coli
Accession:	Q9UNL4 (M1-K249)
Gene ID:	51147
Molecular Weight:	Approximately 31 kDa

PROPERTIES

Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 μm filtered solution of PBS, pH 7.4. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH_2O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	ING4 is a vital component of HBO1 complexes, orchestrating the acetylation of histone H3 at 'Lys-14' (H3K14ac) while displaying reduced activity toward histone H4. Its involvement in chromatin acetylation suggests a potential role in DNA replication. Functionally, ING4 demonstrates tumor-suppressive properties by modulating the transcriptional output of signaling pathways that regulate cell proliferation. Notably, it can suppress brain tumor angiogenesis through transcriptional repression of RELA/NFKB3 target genes when forming a complex with RELA, and it exhibits the capacity to inhibit the loss of contact inhibition induced by activated oncogenes like MYC. ING4's repertoire extends to the repression of hypoxia-inducible factor (HIF) activity through interaction with HIF prolyl hydroxylase 2 (EGLN1), ultimately contributing to diverse cellular processes. The structural context involves ING4's homodimeric form and its association within the HBO1 complex, which includes KAT7/HBO1, MEAF6, and scaffold subunits BRPF or JADE, directing its specificity towards distinct histone acetylation targets. Furthermore, ING4 engages in interactions with histone modifications, EP300, RELA, TP53, and EGLN1, showcasing its intricate involvement in various cellular pathways and protein networks.

Caution: Product has not been fully validated for medical applications. For research use only.

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