

Recombinant Mouse BCL6 Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP51409

Size: 10ug, 100ug

Protein Name: B-cell lymphoma 6 protein homolog

Synonym: Bcl6, Bcl-6

UniProt ID: P41183

UniProt Link: www.uniprot.org/uniprotkb/P41183/entry

Species Source: Mouse

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 707 AA

Molecular Weight: 79 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MASPADSCIQFTRHASDVLLNLRSLRDILTDVVIVVSREQFRAHKTVLMACSGLFYSIFTDQLKCN
LSVINLDPEISPEGFCILLDFMYTSRLNLREGNIMAVMTTAMYLQMEHVVDTCRKFIKASEAEMAPALK
PPREEFLNSRMLMPHDIMAYRGREVENNMPLRNTPGCESRAFAPPLYSGLSTPPASYPMYSHLPL
STFLFSDEELRDAPRMPVANPFPKERALPCDSARQVPNEYSRPAMEVSPSLCHSNIYSPKEAVPEE
ARSDIHYSVPEGPKPAVPSARNAPYFPCDKASKEEERPSSEDEIALHFEPNAPLNRKGLVSPQSPQ
KSDCQPNSTPESCSSKNACILQASGSPPAKSPTDPKACNWKKYKFIVLNSLNQNAKPEGSEQAELG
RLSPRAYPAPPACQPPMEPANLDLQSPTKLSASGEDSTIPQASRLNNLVNRSLAGSPRSSSESHSPL
YMHPPKCTSCGSQSPQHTMCLHTAGPTFPEEMGETQSEYSDSSCENGTFFCNECDCRFSEEASL
KRHTLQTHSDKPYKCDRCQASFRYKGNLASHKTVHTGEKPYRCNICGAQFNRPANLKTHTRIHSGE
KPYKCETCGARFVQVAHLRAHVLIHTGEKPYPCEICGTRFRHLQTLKSHLRIHTGEKPYHCEKCNLH
FRHKSQRLRLHLRQKHGAITNTKVQYRVSAADLPPELPKAC

3. Buffer Composition

Liquid format: PBS-based buffer containing 50% glycerol. Glycerol concentration can be customized upon customer request; please state special requirements when placing your order.

Lyophilized format: Buffer before lyophilization is PBS supplemented with 6% trehalose.

4. Storage Conditions

Upon receipt, store the product at -20 °C or -80 °C. Aliquot the product for on-demand use to preserve protein activity and prevent denaturation and inactivation caused by repeated freeze-thaw cycles.

5. Product Description

This product is recombinant B-cell lymphoma 6 protein homolog produced using the HEK293T eukaryotic cell expression system. It is suitable for in-vitro functional assays, protein-protein interaction studies, antibody preparation and other biomedical research applications.

Protein Function: Transcriptional repressor mainly required for germinal center (GC) formation and antibody affinity maturation which has different mechanisms of action specific to the lineage and biological functions. Forms complexes with different corepressors and histone deacetylases to repress the transcriptional expression of different subsets of target genes. Represses its target genes by binding directly to the DNA sequence 5'-TTCCTAGAA-3' (BCL6-binding site) or indirectly by repressing the transcriptional activity of transcription factors. In GC B-cells, represses genes that function in differentiation, inflammation, apoptosis and cell cycle control, also autoregulates its transcriptional expression and up-regulates, indirectly, the expression of some genes important for GC reactions, such as AICDA, through the repression of microRNAs expression, like miR155. An important function is to allow GC B-cells to proliferate very rapidly in response to T-cell dependent antigens and tolerate the physiological DNA breaks required for immunoglobulin class switch recombination and somatic hypermutation without inducing a p53/TP53-dependent apoptotic response. In follicular helper CD4(+) T-cells (T(FH) cells), promotes the expression of T(FH)-related genes but inhibits the differentiation of T(H)1, T(H)2 and T(H)17 cells. Also required for the establishment and maintenance of immunological memory for both T- and B-cells. Suppresses macrophage proliferation through competition with STAT5 for STAT-binding motifs binding on certain target genes, such as CCL2 and CCND2. In response to genotoxic stress, controls cell cycle arrest in GC B-cells in both p53/TP53-dependent and -independent manners. Besides, also controls neurogenesis through the alteration of the composition of NOTCH-dependent transcriptional complexes at selective NOTCH targets, such as HES5, including the recruitment of the deacetylase SIRT1 and resulting in an epigenetic silencing leading to neuronal differentiation.

Subcellular Localization: Nucleus .

6. Notes

- Avoid repeated freeze-thaw cycles to maintain protein stability and biological activity.
- Please specify special buffer-composition requirements at the time of order placement.
- For research use only. Not intended for clinical diagnosis, therapeutic use or commercial manufacturing.