Recombinant TRIM24 (862-980) protein

Catalog No: 31368, 31768
Lot No: 01917002
Expressed In: *E. coli*

Quantity: 100, 1000 µg
Concentration: 1 µg/µl
Source: Human

Buffer Contents: Recombinant TRIM24 (862-980) protein was expressed in *E. coli* cells at a concentration of 1 µg/µl in 25 mM Tris pH 8.0, 500 mM NaCl, 20% glycerol.

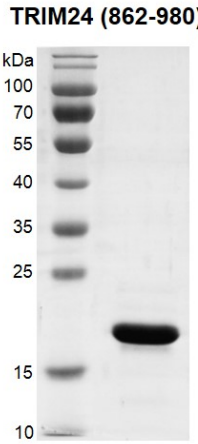
Background: TRIM24 (Tripartite motif-containing 24) protein is a member of the transcriptional intermediary factor 1 (TIF1) family that control transcription and chromatin remodeling through their interaction with transcription factors. The family includes TRIM24 (TIF1α), TRIM28 (TIF1β) and TRIM33 (TIF1γ) that share a characteristic domain structure comprised of multiple histone-binding domains, an N-terminal TRIM region (containing a RING domain, B box type 1 and type 2 domains, and a coiled-coil region), and a C-terminal bromodomain and PHD finger. Bromodomains function as 'readers' of epigenetic histone marks and regulate chromatin structure and gene expression by linking associated proteins to the recognized acetylated nucleosomal targets. TRIM24 interacts with chromatin through recognition of specific histone H3 modifications, having the highest affinity for histone H3 that is both unmodified at lysine 4 (H3K4me0) and acetylated at lysine 23 (H3K23ac). TRIM24 is an E3 ubiquitin-protein ligase that promotes proteosomal degradation of p53/TP53 and, in conjunction with TRIM33, mediates cell proliferation and apoptosis. TRIM24 also modulates transcriptional activation by retinoic acid (RA) receptors, including RARA, and has been shown to regulate RA-dependent proliferation of hepatocytes. TRIM24 functions as a transcriptional coactivator that interacts with the AF2 region of numerous nuclear receptors, including estrogen, RA and vitamin D_3 receptors, and coactivators to modulate the transcription of target genes. It has been shown to be involved in upregulating ligand-dependent transcription activation by AR, GCR/NR3C1, thyroid hormone receptor (TR) and ESR1.

Protein Details: The peptide corresponding to amino acids 862 - 980 that contains the bromodomain sequences of TRIM24 (accession number NM_003852.3) was expressed in *E. coli* and contains an N-terminal His tag and C-terminal FLAG tag with an observed molecular weight of 18.8 kDa. It shows binding specificity for acetylated H3K9, H3K14 and H3K16. The recombinant protein is >90% pure by SDS-PAGE.

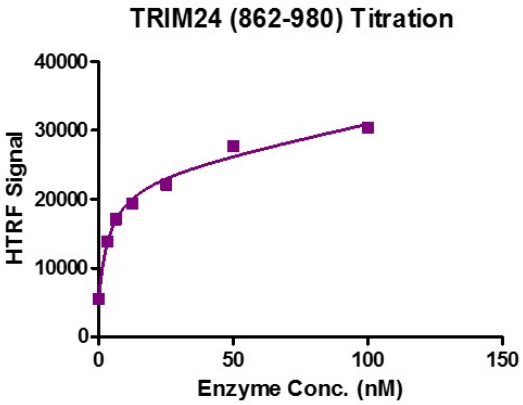
Application Notes: Recombinant TRIM24 (862-980) is suitable for use in binding assays, inhibitor screening, and selectivity profiling.

Storage and Guarantee: Recombinant proteins in solution are temperature sensitive and must be stored at -80°C to prevent degradation. Avoid repeated freeze/thaw cycles and keep on ice when not in storage. This product is guaranteed for 6 months from date of receipt.

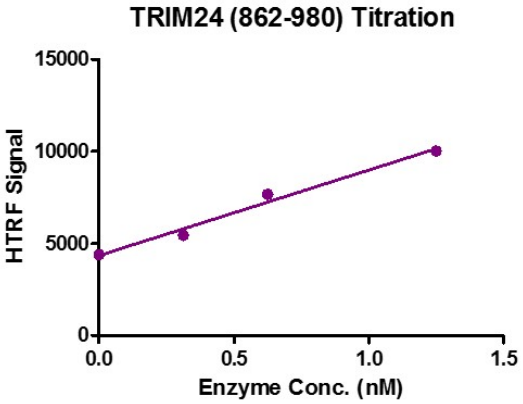
This product is for research use only and is not for use in diagnostic procedures.



Recombinant TRIM24 (862-980) protein gel.
TRIM24 (862-980) protein was run on a 12% SDS-PAGE gel and stained with Coomassie Blue.
MW: 18.8 kDa
Purity: > 95%



HTRF Assay for Recombinant TRIM24 (862-980) activity.
3 µM histone peptide H3K14ac was incubated with TRIM24 (862 -980) protein in reaction buffer including 50 mM HEPES-NaOH pH 7.0, 0.1% BSA for 1 hour at room temperature. Anti-Flag antibody was used to detect reaction products.



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