

PRODUCT INFORMATION



TRIM33 PHD and bromodomain (human, recombinant)

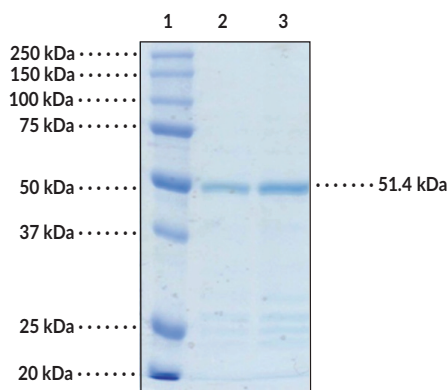
Item No. 14661

Overview and Properties

Synonyms: Ectoderm Homolog, E3 Ubiquitin-protein Ligase TRIM33, RFG7, TIF1- γ , Transcriptional Intermediary Factor 1- γ , Tripartite Motif Containing 33
Source: Recombinant N-terminal GST-tagged protein expressed in *E. coli*
Amino Acids: 882-1,087 (N- and C-terminal truncation)
Molecular Weight: 51.4 kDa
Storage: -80°C (as supplied)
Stability: ≥ 6 months
Purity: *batch specific* ($\geq 80\%$ estimated by SDS-PAGE)
Supplied in: 50 mM Tris, pH 8.0, with 150 mM sodium chloride and 20% glycerol
Protein Concentration: *batch specific* mg/ml

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Image



Lane 1: MW Markers

Lane 2: TRIM33 PHD and bromodomain (2 μ g)

Lane 3: TRIM33 PHD and bromodomain (4 μ g)

Representative gel image shown; actual purity may vary between each batch.

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY
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Description

TRIM33 (TIF1- γ) is a multi-domain regulator of transcription. It contains a RING domain with E3 ubiquitin ligase activity, two B-boxes, a coiled-coil domain, a PHD domain, and a bromodomain. TRIM33 is necessary for embryogenesis, and mice homozygous for TRIM33 knock-out do not survive to embryonic day 9.5.¹ TRIM33 is targeted to DNA by its tandem PHD and bromodomain which bind histone 3 at trimethylated lysine 9 (H3K9me3) and acetylated lysine 18 (H3K18ac), respectively.² TRIM33 represses TGF β signaling by sequestering Smad2/3, and by ubiquitinating Smad4.³⁻⁵ The TRIM33-Smad2/3 complex upregulates transcription at sites of H3K9 trimethylation. During the DNA damage response, TRIM33 targets Amplified in Liver Cancer 1 (ALC1) to sites of DNA damage.⁶ Deletion of either the PHD or bromodomain of TRIM33 prevents localization of TRIM33 to sites of DNA damage.⁶ This protein product contains the PHD and bromodomains of TRIM33.

References

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3. Fattet, T., Ay, A., Bonneau, B., et al. *J. Cell Sci.* **126(16)**, 3713-3723 (2013).
4. Dupont, S., Mamidi, A., Cordenonsi, M., et al. *Cell* **136(1)**, 123-135 (2009).
5. Agricola, E., Randall, R.A., Gaarenstroom, T., et al. *Mol. Cell* **43(1)**, 85-96 (2011).
6. Kulkarni, A., Oza, J., Yao, M., et al. *J. Biol. Chem.* (2013).

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