

PRODUCT INFORMATION



RIZ1 (human recombinant)

Item No. 10765

Overview and Properties

Synonyms: KMT8, PRDM2, PR Domain Zinc Finger Protein 2, Retinoblastoma Protein-interacting Zinc Finger Protein

Source: Recombinant N-terminal GST-tagged protein expressed in *E. coli*

Amino Acids: 2-200 (C-terminal truncation)

Uniprot No.: Q13029

Molecular Weight: 49.5 kDa

Storage: -80°C (as supplied); avoid freeze/thaw cycles by aliquoting protein

Stability: ≥6 months

Purity: *batch specific* (≥85% estimated by SDS-PAGE)

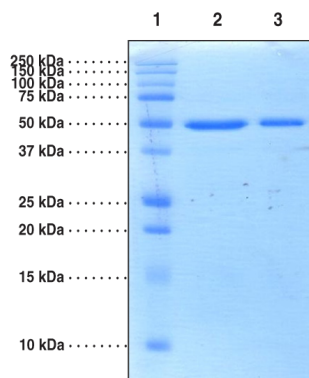
Supplied in: *batch specific* Protein

Concentration: *batch specific* mg/ml

Additional Information: This protein has not been tested for enzyme activity.

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

Image



Lane 1: MW Markers
Lane 2: RIZ1 (5 µg)
Lane 3: RIZ1 (2.5 µg)

Representative gel image shown; actual purity may vary between each batch but protein will be ≥95% pure.

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.

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Description

Retinoblastoma protein-interacting zinc finger protein 1 (RIZ1), also known as PRDM2, is a SAM-dependent histone methyltransferase that specifically methylates histone H3 on lysine 9. RIZ1 contains 8 zinc-finger motifs and 1 PR domain.^{1,2} The RIZ gene encodes two different proteins, RIZ1 and RIZ2. RIZ1 is a tumor suppressor that can arrest the cell cycle and induce apoptosis. RIZ2 however, is a proto-oncoprotein lacking the N-terminal PR domain containing the methyltransferase activity.³ When RIZ1 is silenced or mutated, the reduced methyltransferase activity can lead to inheritable changes in chromatin methylation and gene expression patterns.⁴

References

1. Buyse, I.M., Shao, G., and Huang, S. The retinoblastoma protein binds to RIZ, a zinc-finger protein that shares an epitope with the adenovirus E1A protein. *Proc. Natl. Acad. Sci. USA* **92**, 4467-4471 (1995).
2. Xie, M., Shao, G., Buyse, I.M., *et al.* Transcriptional repression mediated by the PR domain zinc finger gene RIZ. *J. Biol. Chem.* **272(42)**, 26360-26366 (1997).
3. Liu, L., Shao, G., Steele-Perkins, G., *et al.* The retinoblastoma interacting zinc finger gene RIZ produces a PR domain-lacking product through an internal promoter. *J. Biol. Chem.* **272(5)**, 2984-2991 (1997).
4. Kim, K.-C., Geng, L., and Huang, S. Inactivation of a histone methyltransferase by mutations in human cancers. *Cancer Res.* **63**, 7619-7623 (2003).

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