

Product Information



BRD9 bromodomain (human recombinant)

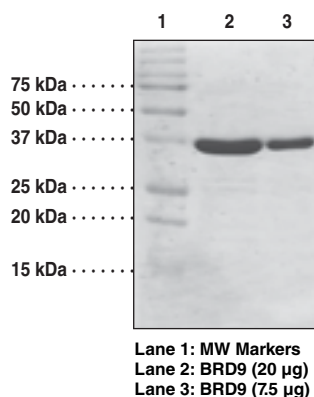
Item No. 11509 • Batch No. XXXXXX

Synonym: Bromodomain containing protein 9
Source: Recombinant N-terminal GST-tagged protein expressed in *E. coli*
Amino Acids: 21-137 (partial protein)
Genbank Accession No.: NP_076413
M_r: 40.7 kDa
Purity: ≥95%
Stability: ≥1 year at -80°C; avoid freeze/thaw cycles by aliquoting protein.
Supplied in: 50 mM Tris, pH 7.5, containing 500 mM sodium chloride, 5% glycerol, and 5 mM β-mercaptoethanol

Protein Concentration: *batch specific* mg/ml

The acetylation of histone lysine residues plays a crucial role in the epigenetic regulation of gene transcription. Acetylated lysine residues are recognized by a small protein domain known as a bromodomain.¹ These domains function in the linking of protein complexes to acetylated nucleosomes, thereby controlling chromatin structure and gene expression. Thus, bromodomains serve as “readers” of histone acetylation marks regulating the transcription of target promoters.² The BET family of proteins, defined by tandem bromodomains and an extra terminal domain, include BRD2, BRD3, BRD4, and BRDT.³ The BET proteins play a key role in many cellular processes, including inflammatory gene expression, mitosis, and viral/host interactions.⁴⁻⁶

Human BRD9 contains a single bromodomain and has five isoforms that are produced by alternative splicing.² This product contains the bromodomain region of BRD9.



References

1. Mujtaba, S., Zeng, L., and Zhou, M.-M. Structure and acetyl-lysine recognition of the bromodomain. *Oncogene* **26**, 5521-5527 (2011).
2. Muller, S., Filippakopoulos, P., and Knapp, S. Bromodomains as therapeutic targets. *Expert Rev. Mol. Med.* **13**, 1-21 (2011).
3. Florence, B. and Faller, D.V. You bet-cha: A novel family of transcriptional regulators. *Front. Biosci.* **6**, D1008-D1018 (2011).
4. Hargreaves, D.C., Horng, T., and Medzhitov, R. Control of inducible gene expression by signal-dependent transcriptional elongation. *Cell* **138**(1), 129-45 (2009).
5. LeRoy, G., Rickards, B., and Flint, S.J. The double bromodomain proteins Brd2 and Brd3 couple histone acetylation to transcription. *Mol. Cell* **30**(1), 51-60 (2008).
6. Weidner-Glunde, M., Ottinger, M., and Schulz, T.F. WHAT do viruses BET on? *Front. Biosci.* **15**, 537-549 (2010).

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