

PRODUCT INFORMATION



BRD9 bromodomain (human, recombinant)

Item No. 11509

Overview and Properties

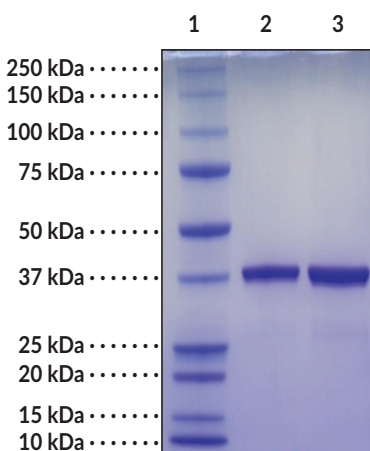
Synonym: Bromodomain-containing protein 9
Source: Recombinant human N-terminal GST-tagged BRD9 bromodomain expressed in *E. coli*
Amino Acids: 134-239
Molecular Weight: 40.7 kDa
Storage: -80°C (as supplied)
Stability: ≥2 years
Purity: ≥95% estimated by SDS-PAGE
Supplied in: 50 mM Tris, pH 7.5, with 500 mM sodium chloride, 5% glycerol, and 5 mM β-mercaptoethanol

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: BRD9 bromodomain (2 µg)

Lane 3: BRD9 bromodomain (4 µg)

SDS-PAGE Analysis of BRD9 bromodomain.

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

Bromodomain-containing protein 9 (BRD9) is a member of family IV bromodomains.¹ It is composed of an N-terminal bromodomain that recognizes acetyl-, propionyl- and butyryllysine modifications on histones and a C-terminal DUF3512 domain, and is a component of the SWI/SNF chromatin remodeling complex.^{2,3} BRD9 is involved in transcriptional regulation, androgen receptor signaling, inflammation, viral defense, and homologous recombination.⁴⁻⁷ Inhibition of BRD9 by the small molecule I-BRD9 (Item No. 17749) or PROTAC dBRD9 (Item No. 45720) inhibits the proliferation of prostate cancer cells *in vitro*, and knockdown of BRD9 reduces tumor growth in an LNCaP prostate cancer mouse xenograft model.⁴ BRD9 mutations have been found in patients with Sézary syndrome, an aggressive form of cutaneous T cell lymphoma (CTCL).⁸

References

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3. St. Pierre, R. and Kadoch, C. Mammalian SWI/SNF complexes in cancer: Emerging therapeutic opportunities. *Curr. Opin. Genet. Dev.* **42**, 56-67 (2017).
4. Alpsoy, A., Utturkar, S.M., Carter, B.C., *et al.* BRD9 is a critical regulator of androgen receptor signaling and prostate cancer progression. *Cancer Res.* **81**(4), 820-833 (2021).
5. Wang, L., Oh, T.G., Magida, J., *et al.* Bromodomain containing 9 (BRD9) regulates macrophage inflammatory responses by potentiating glucocorticoid receptor activity. *Proc. Natl. Acad. Sci. USA* **118**(35), e2109517118 (2021).
6. Börold, J., Eletto, D., Busnadiego, I., *et al.* BRD9 is a druggable component of interferon-stimulated gene expression and antiviral activity. *EMBO Rep.* **22**(10), e52823 (2021).
7. Zhou, Q., Huang, J., Zhang, C., *et al.* The bromodomain containing protein BRD-9 orchestrates RAD51-RAD54 complex formation and regulates homologous recombination-mediated repair. *Nat. Commun.* **11**(1), 2639 (2020).
8. da Silva Almeida, A.C., Abate, F., Khiabani, H., *et al.* The mutational landscape of cutaneous T cell lymphoma and Sézary syndrome. *Nat. Genet.* **47**(12), 1465-1470 (2015).

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