

Product Information



BRDT bromodomain 1 (human recombinant)

Item No. 11548 • Batch No. XXXXXX

Synonyms: BRD6, Bromodomain testis-specific protein, Cancer/testis antigen 9, CT9, RING3-like protein
Source: Recombinant N-terminal GST-tagged protein expressed in *E. coli*
Amino Acids: 21-137 (partial protein)
Genbank Accession No.: AAH47900
M_r: 40.6 kDa
Purity: ≥95% estimated by SDS-PAGE
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

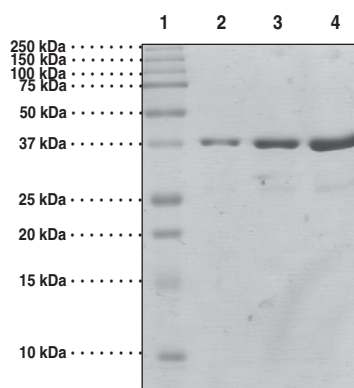
BRDT is similar to the RING3 protein family and possesses 2 bromodomain motifs and a PEST sequence motif, which is a region rich in proline (P), glutamic acid (E), serine (S), and threonine (T) residues known to have a short intracellular half-life. This product contains the bromodomain 1 region of BRDT.

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).

Related Products

For a list of related products please visit: www.caymanchem.com/catalog/11548



Lane 1: MW Markers
Lane 2: BRDT (2 µg)
Lane 3: BRDT (5 µg)
Lane 4: BRDT (10 µg)

WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY: NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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