

PRODUCT INFORMATION



BRDT bromodomain 1 (human, recombinant)

Item No. 11548

Overview and Properties

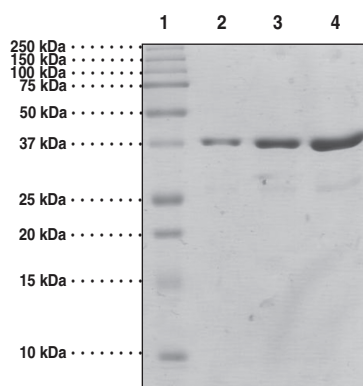
Synonyms: BRD6, Bromodomain testis-specific protein, Cancer/testis antigen 9, CT9, RING3-like protein
Source: Recombinant N-terminal GST-tagged protein expressed in *E. coli*
Amino Acids: 21-137 (partial protein)
Uniprot No.: Q58F21
Molecular Weight: 40.6 kDa
Storage: -80°C (as supplied)
Stability: ≥2 years
Purity: *batch specific* (≥80% estimated by SDS-PAGE)
Supplied in: *batch specific* OR 50 mM Tris, pH 7.5, with 500 mM sodium chloride, 5% glycerol, and 5mM 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: BRDT (2 µg)
Lane 3: BRDT (5 µg)
Lane 4: BRDT (10 µg)

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

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

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2. Muller, S., Filippakopoulos, P., Knapp, S., *et al.* Bromodomains as therapeutic targets. *Expert Rev. Mol. Med.* **13**, 1-21 (2011).
3. Florence, B. Faller, D.V. You bet-cha: A novel family of transcriptional regulators. *Front. Biosci.* **6**, D1008-D1018 (2011).
4. Hargreaves, D.C., Horng, T., Medzhitov, R., *et al.* Control of inducible gene expression by signal-dependent transcriptional elongation. *Cell* **138(1)**, 129-45 (2009).
5. LeRoy, G., Rickards, B., Flint, S.J., *et al.* 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., Schulz, T.F., *et al.* WHAT do viruses BET on? *Front. Biosci.* **15**, 537-549 (2010).

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