

PRODUCT INFORMATION



BRD7 bromodomain (human, recombinant)

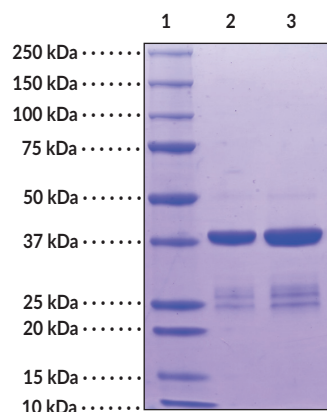
Item No. 14491

Overview and Properties

Synonyms: Bromodomain containing protein 7, Protein CELTIX-1
Source: Recombinant N-terminal GST-tagged protein expressed in *E. coli*
Amino Acids: 129-252 (partial protein)
Molecular Weight: 42.2 kDa
Storage: -80°C (as supplied); avoid freeze/thaw cycles by aliquoting protein
Stability: ≥2 years
Purity: *batch specific* (≥70% estimated by SDS-PAGE)
Supplied in: 50 mM Tris, pH 8.0, with 150 mM sodium chloride and 20% glycerol
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: BRD7 bromodomain (2 µg)
Lane 3: BRD7 bromodomain (4 µg)

Representative gel image shown; actual purity may vary between each batch.

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 linking 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 BRD7 is a subunit of the polybromo-associated BRG1-associated factor (PBAF)-specific component of the switch/sucrose non-fermentable chromatin-remodeling complex.³ It has a tumor suppressor role by acting as a cofactor for p53 and regulating breast cancer tumorigenicity.^{4,5} Cells lacking BRD7 have reduced breast cancer type 1-dependent estrogen receptor α expression.⁵ Down-regulation of BRD7 has been demonstrated in nasopharyngeal carcinoma cell lines and in colorectal cancer.^{4,6} BRD7 is also involved in transcriptional gene silencing through binding to protein arginine methyltransferase 5 and polycomb repressive complex 2. This protein product contains the bromodomain region of BRD7.

References

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2. Muller, S., Filippakopoulos, P., and Knapp, S. Bromodomains as therapeutic targets. *Expert Rev. Mol. Med.* **13**, 1-21 (2011).
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4. Wu, W.-J., Hu, K.-S., Chen, D.-L., *et al.* Prognostic relevance of BRD7 expression in colorectal carcinoma. *Eur. J. Clin. Invest.* **43(2)**, 131-140 (2013).
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