

BRD9 (His)

CATALOG NO.: RD-11-214

LOT NO.:

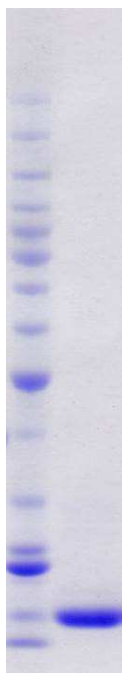
DESCRIPTION: Human recombinant BRD9 bromodomain (residues 135-248; Genbank Accession # NM_023924; MW = 15.9 kDa) expressed in *E. coli* with an N-terminal His-tag. BRD9 has been identified as a subunit of the BAF-subtype of SWI/SNF nucleosome remodeling complexes^{1,2}. The SWI/SNF complexes are the most highly mutated chromatin regulator in human cancers (19.6% in 44 published sequencing studies), although BRD9 subunit is among the least mutated subunits². However, increased copy numbers of the BRD9 gene occur with high frequency in early stage non-small cell lung cancers³ and in invasive cervical cancers⁴. Triazolophthalazine inhibitors exhibiting low micromolar affinity and some partial selectivity for the BRD9 bromodomain (along with CREBBP, CECR2 and/or BRD4 bromodomains) have been synthesized⁵ and crystal structures of the BRD9 bromodomain determined both with⁵ and without⁶ one such ligand.

PURITY: >90% by SDS-PAGE

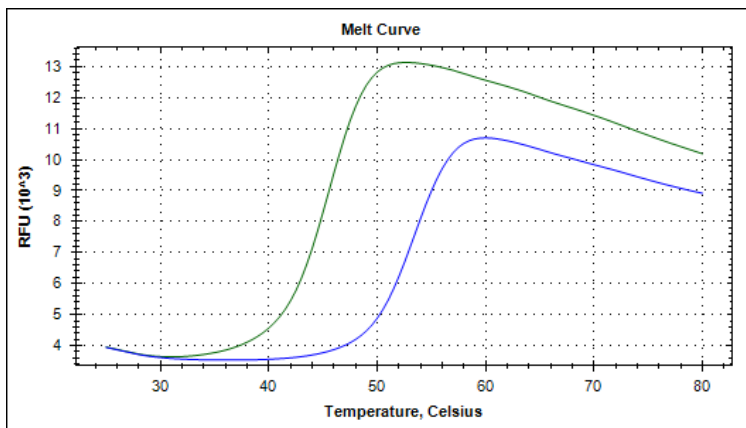
SUPPLIED AS: _ µg/µL in 50 mM Tris HCl, pH 7.5, 500 mM NaCl, 1 mM TCEP, 10% glycerol (v/v) as determined by OD₂₈₀

STORAGE: -70°C. Thaw quickly and store on ice before use. The remaining, unused, undiluted protein should be snap frozen, for example in a dry/ice ethanol bath or liquid nitrogen. Minimize freeze/thaws if possible, but very low volume aliquots (<5 µl) or storage of diluted protein is not recommended.

REFERENCES: 1) E. Middeljans *et al. PLoS One* 2012 **7** e33834; 2) C. Kadoch *et al. Nature Genet.* 2013 **45** 592; 3) J.U. Kang *et al. Cancer Genet. Cytogenet.* 2008 **182** 1; 4) L. Scotto *et al. Mol. Cancer* 2012 **7** 58; 5) O. Fedorov *et al. J. Med. Chem.* 2014 **57** 462; 6) P. Filippakopoulos *et al. Cell* 2012 **149** 214



Coomassie blue-stained SDS-PAGE (4-12% acrylamide) of 4 µg of RBC BRD 9 (His). MW markers (left) are, from top, 220, 160, 120, 100, 90, 80, 70, 60, **50**, 40, 30, 25, 20, 15 & 10 kDa.



Differential Scanning Fluorimetry of RBC BRD9 (His) in the presence or absence of Bromosporine. Thermal denaturation of BRD9 (His) is detected (CFX384 TMTouch thermal cycler, 'FRET' channel; Bio- Rad) by increased binding and fluorescence of the dye SYPRO[®]Orange (Life Technologies). Addition of 25 µM Bromosporine (blue) stabilizes the protein folding and shifts the T_m (inflection point) from 45.5°C to 53.5°C.

This product is not intended for therapeutic or diagnostic use in animals or in humans.

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