

**BPTF-[BRD] (His)**

**CATALOG NO.:** RD-11-253

**LOT NO.:**

**DESCRIPTION:** Human recombinant BPTF bromodomain (residues 2793- 2920; Genbank Accession # NM\_182641; MW = 17.9 kDa) expressed with an N-terminal His-tag in *E. coli*. Full-length BPTF<sup>1,2</sup> is a DNA and histone-binding component of the NURF nucleosome remodeling complex (see review<sup>3</sup>). This construct comprises BPTF's bromodomain which is located at the C-terminus and has binding affinity for various histone tail acetyllysines<sup>4,5</sup>, including H4 K5Ac<sup>5</sup>, K12Ac<sup>4</sup> and K16Ac<sup>4</sup>. BPTF expression is elevated in developing neurons<sup>6</sup>, but also in neuronal tissue under various neurodegenerative conditions<sup>7,8</sup>. Amplification of the BPTF-coding chromosomal locus is prevalent in various cancers and knockdown of BPTF restricts proliferation in cultured cells with an engineered pre-malignant phenotype<sup>9</sup>.

**PURITY:** >95% by SDS-PAGE

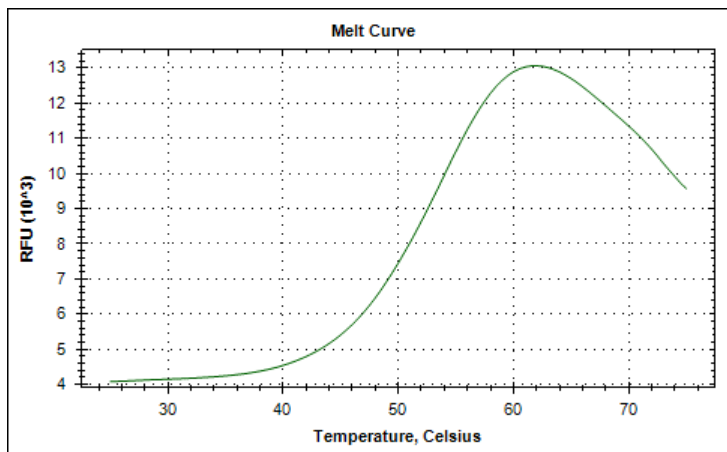
**SUPPLIED AS:** \_ µg/µL in 50 mM Tris HCl, pH 7.5, 500 mM NaCl, 1 mM TCEP, 10 % glycerol as determined by OD<sub>280</sub>

**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 enzyme is not recommended.

**REFERENCES:** 1) K.L. Jordan-Sciutto *et al. J. Biol. Chem.* 1999 **274** 35262; 2) M.H. Jones *et al. Genomics* 2000 **63** 35; 3) S.G. Alkhatib & J.W. Landry *FEBS Lett.* 2011 **585** 3197; 4) A.J. Ruthenburg *et al. Cell* 2011 **145** 692; 5) P. Filippakopoulos *et al. Cell* 2012 **149** 214; 6) K.L. Jordan-Sciutto *et al. Biochem. Biophys. Res.* 1999 **260** 785; 7) S. Schoonover *et al. J. Neuropathol. Exp. Neurol.* 1996 **55** 444; 8) X. Mu *et al. Exp. Neurol.* 1997 **146** 17; 11) Y. Buganim *et al. PLoS One* 2010 **5** e9657



**Coomassie blue-stained SDS-PAGE (4-12% acrylamide) of 4 µg of RBC BPTF-[BRD] (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 BPTF-[BRD] (His) in presence or absence of common bromodomain ligands.** Thermal denaturation of BPTF-[BRD] (His) is detected (CFX384 TMTouch thermal cycler, 'FRET' channel; Bio- Rad) by increased binding and fluorescence of the dye SYPRO®Orange (Life Technologies). The apo form of BPTF-[BRD] (His) displays a T<sub>m</sub> of 54°C and is not stabilized in the presence of various known bromodomain ligands (JQ1, PFI1, CBP112, Bromosporine, SGC-CBP30, BET151 and RVX-208; all tested at 25 µM).

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

Reaction Biology

1 Great Valley Parkway, Malvern PA, USA 19355

requests@reactionbiology.com www.reactionbiology.com