

BPTF-[BRD] (GST)

CATALOG NO.: RD-11-239

LOT NO.:

DESCRIPTION: Human recombinant BPTF bromodomain (residues 2791-2920 (C-term.); Genbank Accession # NM_182641; MW = 42.2 kDa) expressed as an N-terminal GST-fusion protein in *E. coli*. Full-length BPTF^{1,2} is a DNA and histone-binding component of the NURF nucleosome remodeling complex (see review³). This construct comprises BPTF's bromodomain which is located at the C-terminus and has binding affinity for various histone tail acetyllysines^{4,5}, including H4 K5Ac⁵, K12Ac⁴ and K16Ac⁴. BPTF expression is elevated in developing neurons⁶, but also in neuronal tissue under various neurodegenerative conditions^{7,8}. 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 phenotype⁹.

PURITY: >85% by SDS-PAGE

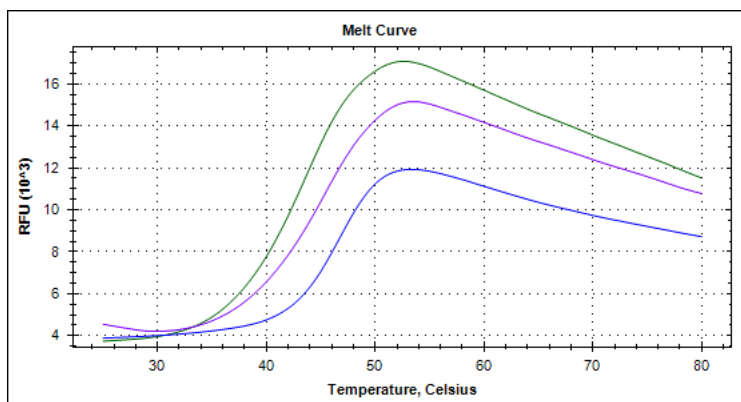
SUPPLIED AS: µg/µL in 50 mM Tris HCl, pH 7.5, 500 mM NaCl, 1 mM TCEP, 10 % glycerol as determined by OD₂₈₀

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 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] (GST). 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] (GST) in presence or absence of common bromodomain ligands. Thermal denaturation of BPTF-[BRD] (GST) 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) and RVX-208 (purple) stabilizes the protein folding and shifts the T_m (inflection point) from 43.5°C to 46.5°C and 45.5°C respectively.

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

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