

SP100-[PHD-BRD] (GST) (SP100-C; Nuclear autoantigen Sp-100; Speckled 100 kDa)

CATALOG NO.: RD-11-193

LOT NO.:

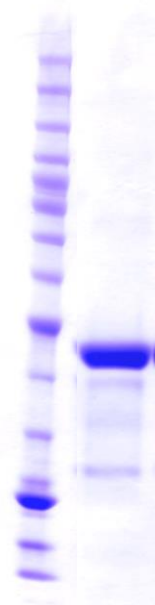
DESCRIPTION: Human recombinant SP100 PHD-bromodomain construct (residues 700-876; Genbank Accession # NM_001080391; MW = 48.1 kDa) expressed as an N-terminal GST-fusion protein in *E. coli*. SP100, a component of promyelocytic (PML) nuclear bodies (PML-NBs, aka SP100-PML nuclear bodies, aka nuclear dots), is expressed as four major variants (SP100-A, -B, -C & -HMG) from a single gene¹. Only one of these, SP100-C, comprises the C-terminal PHD-bromodomain region expressed in this construct¹. Like the other major component(s) of PML-NBs, the PML proteins, SP100 is considered a tumor suppressor with functions in growth regulation, differentiation, transcription, apoptosis and responses to various stresses, including DNA damage and viral infection (see reviews^{2,3}).

PURITY: >90% by SDS-PAGE

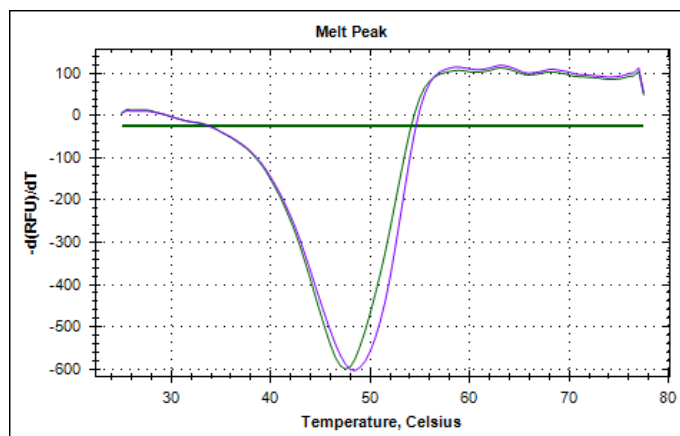
SUPPLIED AS: $_ \mu\text{g}/\mu\text{L}$ in 50 mM Tris-HCl pH 7.5, 500 mM NaCl, 1 mM TCEP, 10 % glycerol

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) J.-S. Seeler *et al. Mol. Cell. Biol.* 2001 **21** 3314; 2) V. Lallemand-Breitenbach & H. de Thé *Cold Spring Harb. Perspect. Biol.* 2010 **2** a000661; 3) R. Bernardi & P.P. Pandolfi *Front. Oncol.* 2014 **4** 23



Coomassie blue stained SDS-PAGE (12% acrylamide) of 10 μg of RBC SP100-[PHD-BRD] (GST). MW markers (left) are, from top, 220, 160, 120, 100, 90, 80, 70, 60, **50**, 40, 30, 25, **20**, 15 kDa.



Differential Scanning Fluorimetry of RBC SP100-[PHD-BRD] (GST)
Thermal denaturation of SP100-[PHD-BRD] (GST) (0.1 mg/mL) is detected (CFX384™ Touch thermal cycler, 'FRET' channel; Bio- Rad) by increased binding and fluorescence of the dye SYPRO®Orange (Life Technologies). Shown are the first derivatives of fluorescence vs. temperature plots in which the "peaks" indicate the T_m's (inflection points) of the original plots. Addition of 25 μM Rvx-208 (violet) stabilizes the protein folding and shifts the T_m from 47.5°C to 48.5°C.

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

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