



## Anti-PSMB4 Antibody

**Alternative Names:** HN3, HsN3, PROS-26, PROS26

**Catalogue Number:** AB18-10052-50ug

**Size:** 50 µg

### Background Information

Proteasome subunit beta type-4 (PSMB4) is an essential subunit that contributes to the assembly of the 20S proteasome complex. The proteasome is a multicatalytic proteinase complex with a highly ordered ring-shaped 20S core structure. The core structure is composed of 4 rings of 28 non-identical subunits; 2 rings are composed of 7 alpha subunits and 2 rings are composed of 7 beta subunits. PSMB4 is a member of the proteasome B-type family, also known as the TTB family, that is a 20S core beta subunit.

Among proteasome family members, proteasome beta-4 subunit (PSMB4) is well established because it functions predominantly as regulating the assembly of the proteasome [1, 2]. PSMB4 was identified as the first proteasomal subunit with oncogenic properties promoting cancer cell survival and tumor growth in vivo [3]. PSMB4 is significantly associated with neuronal apoptosis in neuroinflammation [4].

### Product Information

<b>Antibody Type:</b>	Polyclonal	<b>Host:</b>	Rabbit
<b>Isotype:</b>	IgG	<b>Species Reactivity:</b>	Human, Mouse
<b>Immunogen:</b>	Full length recombinant human PSMB4		
<b>Format:</b>	50 µg in 50 µl PBS containing 0.02% sodium azide.		
<b>Storage Conditions:</b>	6 months: 4°C. Long-term storage: -20°C. Avoid multiple freeze and thaw cycles.		
<b>Applications:</b>	WB IF WB 1:500-2000. IF 1:50-200.		

### Additional Information

<b>Subcellular location:</b>	Cytoplasm, Nucleus	<b>MW:</b>	29kDa (Intended as a general guide and does not allow for all isoforms and species variations)
<b>Gene ID</b>	5692	<b>Uniprot ID:</b>	P28070



## References

[1] Hirano Y, Kaneko T, Okamoto K, Bai M, Yashiroda H, Furuyama K, Kato K, Tanaka K, Murata S (2008) Dissecting beta-ring assembly pathway of the mammalian 20 S proteasome. *EMBO J* 27(16):2204–2213. doi:10.1038/emboj.2008.148 [2] Murata S, Yashiroda H, Tanaka K (2009) Molecular mechanisms of proteasome assembly. *Nat Rev Mol Cell Biol* 10(2):104–115. doi:10.1038/nrm2630 [3]. Lee GY, Haverty PM, Li L, Kljavin NM, Bourgon R, Lee J, Stern H, Modrusan Z, Seshagiri S, Zhang Z, Davis D, Stokoe D, Settleman J, de Sauvage FJ, Neve RM (2014) Comparative oncogenomics identifies PSMB4 and SHMT2 as potential cancer driver genes. *Cancer Res* 74(11):3114–3126. doi:10.1158/0008-5472.CAN-13-2683 [4]. Shi, J., Liu, X., Xu, C. et al. *J Mol Hist* (2015) 46: 457. Up-regulation of PSMB4 is associated with neuronal apoptosis after neuroinflammation induced by lipopolysaccharide.