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SM1662 Monoclonal Antibody to Huntingtin - Purified

Alternate names:	HD, HTT, Huntington Disease Protein, IT15
Quantity:	0.1 mg
Concentration:	1.0 mg/ml
Background:	Huntington's disease (HD) is a neurodegenerative disorder caused by an expanding polyglutamine repeat in the huntingtin gene. HD is a mid-life onset autosomal dominant neurodegeneative disease that is characterized by psychiatric disorders, dementia, and involuntary movements (chorea), leading to death in 10-20 years. The HD gene product is widely expressed in human tissues, with the highest level of expression in the brain. The huntingtin gene product is expressed at similar levels in patients and controls, which suggests that the expansion of the polyglutamine repeat induces a toxic gain of function perhaps through interactions with other cellular proteins. Using yeast two-hybrid system, HAP1 (huntingtin associated protein 1) has been identified, that associates with huntingtin protein. The In vitro data suggest that the association between HAP1 and huntingtin is enhanced by increasing length of glutamine repeat.
Uniprot ID:	P42858
NCBI:	NP_002102.4
GeneID:	3064
Host / Isotype:	Mouse / IgG1
Recommended Isotype Controls:	SM10P (for use in human samples), AM03095PU-N
Clone:	HDC8A4
Immunogen:	Recombinant protein corresponding to amino acids 2703 - 2911 of huntingtin
Format:	**State:** Liquid purified IgG **Purification:** Affinity chromatography on Protein G **Buffer System:** PBS containing 0.09% Sodium Azide
Applications:	Immunohistochemistry on frozen sections. Immunoprecipitation. Western blot. Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

Specificity:

This antibody reacts with an epitope corresponding to the HDC region (2703 - 2911 amino acids) of the huntingtin protein. Clone HDC8A4 detects a 350KD band on western blots but also detects smaller degradation products of huntingtin. Clone HDC8A4 recognises both denatured and native huntingtin in human brain. The combined use of clone HDC8A4 (SM1662), HDB4E10 (SM1661) and HDA3E10 (SM1660) demonstrate that huntingtin is enriched in neuronal cells in the brain.
Species: Rabbit, Human, Mouse.
Other species not tested.

Storage:

Store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer.
Avoid repeated freezing and thawing.
Shelf life: one year from despatch.

General Readings:

1. Wilkinson FL, Nguyen TM, Manilal SB, Thomas P, Neal JW, Harper PS, et al. Localization of rabbit huntingtin using a new panel of monoclonal antibodies. Brain Res Mol Brain Res. 1999 May 21;69(1):10-20. PubMed PMID: 10350633.

Pictures:

Total protein extract of normal human cerebral cortex separated as a strip on a 3- 12.5% gradient SDS-PAGE gel and Western blotted. The blot was probed with SM1662.