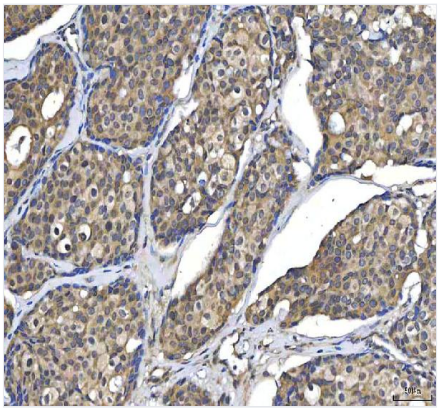
Huntingtin/HTT (HTT) Antibody – Rabbit Polyclonal

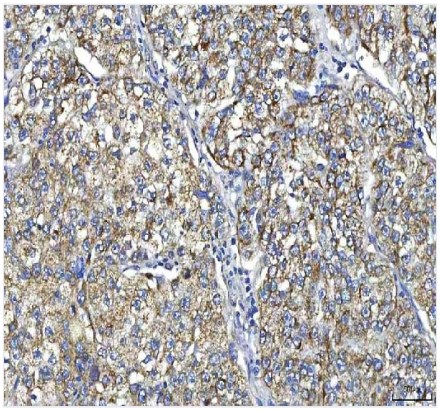
PRODUCT OVERVIEW

Product Name	Huntingtin/HTT, Polyclonal Antibody
Full Product Name	Anti-Huntingtin/HTT Antibody
Product Gene Name	anti-HTT antibody
Product Synonym Names	Serine/threonine-protein kinase AtPK1/AtPK6; 70 kDa ribosomal protein S6 kinase 1 antibody, KS6B1_HUMAN antibody, p70 alpha antibody, P70 beta 1 antibody, p70 ribosomal S6 kinase alpha antibody, p70 ribosomal S6 kinase beta 1 antibody, p70 S6 kinase alpha antibody, P70 S6 Kinase antibody, p70 S6 kinase alpha 1 antibody, p70 S6 kinase alpha 2 antibody, p70 S6K antibody, p70 S6K-alpha antibody, p70 S6KA antibody, p70(S6K) alpha antibody, p70(S6K)-alpha antibody, p70-alpha antibody, p70-S6K 1 antibody, p70-S6K antibody, P70S6K antibody, P70S6K1 antibody, p70S6Kb antibody, PS6K antibody, Ribosomal protein S6 kinase 70kDa polypeptide 1 antibody, Ribosomal protein S6 kinase beta 1 antibody, Ribosomal protein S6 kinase beta-1 antibody, Ribosomal protein S6 kinase I antibody, RPS6KB1 antibody, S6K antibody, S6K-beta-1 antibody, S6K1 antibody, Serine/threonine kinase 14 alpha antibody, Serine/threonine-protein kinase 14A antibody, STK14A antibody
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human
Form/Format	Lyophilized. Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4.
Purity/Purification	Immunogen affinity purified.
Specificity	Expressed in all tissues.
Preparation and Storage	At -20 degree C for one year from date of receipt. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for six months.Avoid repeated freezing and thawing.
Molecular Weight	347,603 Da
OMIM	143100
3D Structure	ModBase 3D Structure for P42858
Immunogen	E coli-derived human Huntingtin/HTT recombinant protein (Position: R3079-C3142). Human HTT shares 93.8% and 92.2% amino acid (aa) sequence identity with mouse and rat HTT, respectively.
Subcellular Localization	Cytoplasm, Nucleus
Reconstitution	Adding 0.2 ml of distilled water will yield a concentration of 500ug/ml.
Cross Reactivity	No cross reactivity with other proteins.
Protein Function	Downstream effector of TOR signaling pathway involved in osmotic stress response. Could be involved in the control of plant growth and development. Phosphorylates the ribosomal proteins P14, P16 and S6. Functions as a repressor of cell proliferation and required for maintenance of chromosome stability and ploidy levels through the RBR1-E2F pathway.
Product Categories/Family for anti-HTT antibody	Primary Antibodies; Signal Transduction; Signaling Pathway; Small G Proteins
ISO Certification	Manufactured in an ISO 13485:2003 and EN ISO 13485:2012 Certified Laboratory.
Applications Tested/Suitable for anti-HTT antibody	Immunohistochemistry (IHC), ELISA (EIA)

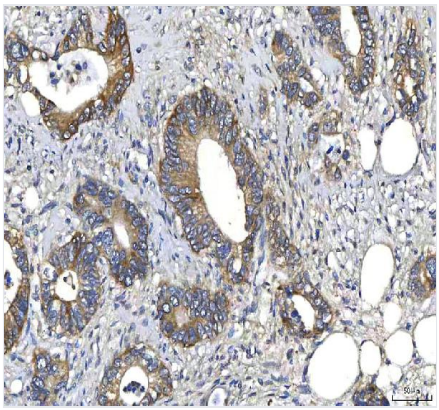
Application Notes for anti-HTT antibody	IHC: 2-5ug/ml, Human ELISA: 0.1-0.5ug/ml
Related Product Information for anti-HTT antibody	MBS1758035 is an antibody targeting HTT. Also known as Anti-Huntingtin/HTT Antibody. Reactive in Human. Host: Rabbit.
Product References and Citations for anti-HTT antibody	1. Kegel, K. B., Meloni, A. R., Yi, Y., Kim, Y. J., Doyle, E., Cuiffo, B. G., Sapp, E., Wang, Y., Qin, Z.-H., Chen, J. D., Nevins, J. R., Aronin, N., DiFiglia, M. Huntingtin is present in the nucleus, interacts with the transcriptional corepressor C-terminal binding protein, and represses transcription. J. Biol. Chem. 277: 7466-7476, 2002.2. The Huntington's Disease Collaborative Research Group (March 1993). "A novel gene containing a trinucleotide repeat that is expanded and unstable on Huntington's disease chromosomes". Cell 72 (6): 971-83.3. Zuccato C, Ciammola A, Rigamonti D, Leavitt BR, Goffredo D, Conti L, MacDonald ME, Friedlander RM, Silani V, Hayden MR, Timmusk T, Sipione S, Cattaneo E (July 2001). "Loss of huntingtin-mediated BDNF gene transcription in Huntington's disease". Science 293(5529): 493-8.
Other Notes	Small volumes of anti-HTT antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.



Immunohistochemistry (IHC) of anti-HTT antibody
Figure 1. IHC analysis of Huntingtin/HTT using anti-Huntingtin/HTT antibody (MBS1758035).Huntingtin/HTT was detected in a paraffin-embedded section of human breast cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2ug/ml rabbit anti-Huntingtin/HTT Antibody (MBS1758035) overnight at 4 degree C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (#MBS176453) with DAB as the chromogen.

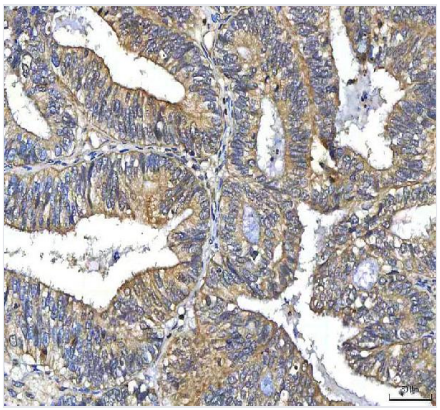


Immunohistochemistry (IHC) of anti-HTT antibody
Figure 2. IHC analysis of Huntingtin/HTT using anti-Huntingtin/HTT antibody (MBS1758035).Huntingtin/HTT was detected in a paraffin-embedded section of human cervix squamous cell carcinoma tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2ug/ml rabbit anti-Huntingtin/HTT Antibody (MBS1758035) overnight at 4 degree C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (#MBS176453) with DAB as the chromogen.



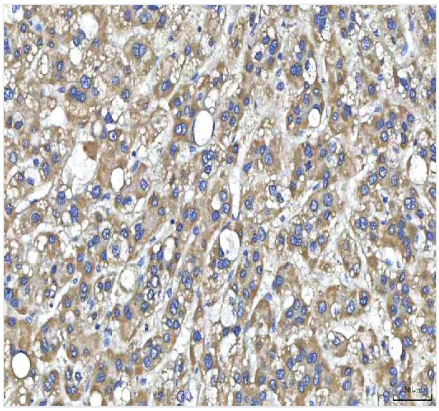
Immunohistochemistry (IHC) of anti-HTT antibody

Figure 3. IHC analysis of Huntingtin/HTT using anti-Huntingtin/HTT antibody (MBS1758035).Huntingtin/HTT was detected in a paraffin-embedded section of human colon adenocarcinoma tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2ug/ml rabbit anti-Huntingtin/HTT Antibody (MBS1758035) overnight at 4 degree C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (#MBS176453) with DAB as the chromogen.



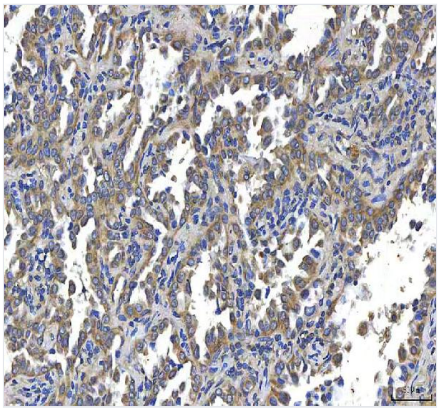
Immunohistochemistry (IHC) of anti-HTT antibody

Figure 4. IHC analysis of Huntingtin/HTT using anti-Huntingtin/HTT antibody (MBS1758035).Huntingtin/HTT was detected in a paraffin-embedded section of human endometrioid adenocarcinoma tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2ug/ml rabbit anti-Huntingtin/HTT Antibody (MBS1758035) overnight at 4 degree C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (#MBS176453) with DAB as the chromogen.



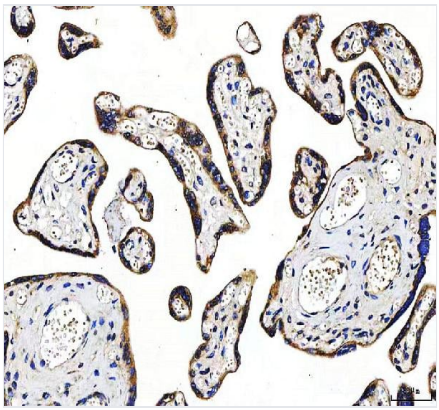
Immunohistochemistry (IHC) of anti-HTT antibody

Figure 5. IHC analysis of Huntingtin/HTT using anti-Huntingtin/HTT antibody (MBS1758035).Huntingtin/HTT was detected in a paraffin-embedded section of human liver cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2ug/ml rabbit anti-Huntingtin/HTT Antibody (MBS1758035) overnight at 4 degree C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (#MBS176453) with DAB as the chromogen.



Immunohistochemistry (IHC) of anti-HTT antibody

Figure 6. IHC analysis of Huntingtin/HTT using anti-Huntingtin/HTT antibody (MBS1758035).Huntingtin/HTT was detected in a paraffin-embedded section of human lung cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2ug/ml rabbit anti-Huntingtin/HTT Antibody (MBS1758035) overnight at 4 degree C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (#MBS176453) with DAB as the chromogen.



Immunohistochemistry (IHC) of anti-HTT antibody
Figure 7. IHC analysis of Huntingtin/HTT using anti-Huntingtin/HTT antibody (MBS1758035).Huntingtin/HTT was detected in a paraffin-embedded section of human placenta tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2ug/ml rabbit anti-Huntingtin/HTT Antibody (MBS1758035) overnight at 4 degree C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (#MBS176453) with DAB as the chromogen.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for HTT. It may not necessarily be applicable to this product.

NCBI GI #	90903231
NCBI GeneID	3064
NCBI Accession #	NP_002102.4
UniProt Primary Accession #	P42858
UniProt Secondary Accession #	Q9UQB7
UniProt Related Accession #	P42858
GenBank Nucleotide #	NM_002111.7
NCBI Official Full Name	huntingtin
NCBI Official Synonym Full Names	huntingtin
NCBI Official Symbol	HTT
NCBI Official Synonym Symbols	HD; IT15
UniProt Protein Name	Huntingtin
UniProt Synonym Protein Names	Huntington disease protein
Protein Family	HD protein
UniProt Gene Name	HTT
UniProt Synonym Gene Names	HD; IT15; HD protein
UniProt Entry Name	HD_HUMAN
NCBI Protein Information	huntingtin; huntington disease protein

NCBI Summary for HTT	Huntingtin is a disease gene linked to Huntington's disease, a neurodegenerative disorder characterized by loss of striatal neurons. This is thought to be caused by an expanded, unstable trinucleotide repeat in the huntingtin gene, which translates as a polyglutamine repeat in the protein product. A fairly broad range in the number of trinucleotide repeats has been identified in normal controls, and repeat numbers in excess of 40 have been described as pathological. The huntingtin locus is large, spanning 180 kb and consisting of 67 exons. The huntingtin gene is widely expressed and is required for normal development. It is expressed as 2 alternatively polyadenylated forms displaying different relative abundance in various fetal and adult tissues. The larger transcript is approximately 13.7 kb and is expressed predominantly in adult and fetal brain whereas the smaller transcript of approximately 10.3 kb is more widely expressed. The genetic defect leading to Huntington's disease may not necessarily eliminate transcription, but may confer a new property on the mRNA or alter the function of the protein. One candidate is the huntingtin-associated protein-1, highly expressed in brain, which has increased affinity for huntingtin protein with expanded polyglutamine repeats. This gene contains an upstream open reading frame in the 5' UTR that inhibits expression of the huntingtin gene product through translational repression. [provided by RefSeq, Jul 2008]
UniProt Comments for HTT	Huntingtin: may play a role in microtubule-mediated transport or vesicle function. Widely expressed with the highest level of expression in the brain (nerve fibers, varicosities, and nerve endings). In the brain, the regions where it can be mainly found are the cerebellar cortex, the neocortex, the striatum, and the hippocampal formation. Defects are the cause of Huntington's disease, a neurodegenerative disorder characterized by loss of striatal neurons. This is thought to be caused by an expanded, unstable trinucleotide repeat in the Huntingtin gene, which translates as a polyglutamine repeat in the protein product. The Huntingtin locus is large, spanning 180 kb and consisting of 67 exons. The Huntingtin gene is widely expressed and is required for normal development. It is expressed as 2 alternatively polyadenylated isoforms displaying different relative abundance in various fetal and adult tissues. Protein type: Cytoskeletal Chromosomal Location of Human Ortholog: 4p16.3 Cellular Component: Golgi apparatus; cytoplasmic vesicle membrane; protein complex; mitochondrion; endoplasmic reticulum; dendrite; autophagic vacuole; inclusion body; cytosol; nucleoplasm; axon; cytoplasm; late endosome; nucleus Molecular Function: identical protein binding; protein binding; p53 binding; dynein intermediate chain binding; beta-tubulin binding; diazepam binding; transcription factor binding Biological Process: ER to Golgi vesicle-mediated transport; citrulline metabolic process; paraxial mesoderm formation; regulation of protein phosphatase type 2A activity; regulation of synaptic plasticity; locomotory behavior; determination of adult life span; endosome transport; anterior/posterior pattern formation; L-glutamate import; establishment of mitotic spindle orientation; regulation of mitochondrial membrane potential; protein import into nucleus; quinolinate biosynthetic process; organ development; retrograde vesicle-mediated transport, Golgi to ER; vesicle transport along microtubule; visual learning; negative regulation of neuron apoptosis; Golgi organization and biogenesis; endoplasmic reticulum organization and biogenesis; grooming behavior; positive regulation of inositol-1,4,5-triphosphate receptor activity; striatum development; axon cargo transport; cell aging; olfactory lobe development; social behavior; lactate biosynthetic process from pyruvate; neuron apoptosis; iron ion homeostasis; insulin secretion; dopamine receptor signaling pathway; hormone metabolic process; neuron development; spermatogenesis; regulation of mitochondrial membrane permeability; response to calcium ion; neural plate formation; urea cycle Disease: Huntington Disease
Research Articles on HTT	**1.** Higher packing density of HTT molecules in brighter inclusions suggests that inclusion growth could involve an intermolecular compaction event within the inclusion, as more monomers and aggregates are recruited into the growing inclusion.
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