abcam

Product datasheet

Anti-Huntingtin antibody ab155942

4 Images

Overview

Product name	Anti-Huntingtin antibody
Description	Rabbit polyclonal to Huntingtin
Host species	Rabbit
Specificity	ab155942 recognizes the 552 cleaved fragment without detecting the full-length form.
Tested applications	**Suitable for:** IHC, WB, ELISA, ICC/IF
Species reactivity	**Reacts with:** Mouse, Human
Immunogen	Synthetic peptide corresponding to Human Huntingtin aa 544-552 conjugated to Keyhole Limpet Haemocyanin (KLH) (Cysteine residue). Sequence: SDPAMDLND Database link: **P42858** Run BLAST with Run BLAST with
Positive control	Huntingtin protein and protein fragments; 293T cells; Mouse cortex tissue; Endogenous Huntingtin lysates, with or without caspase activity.
General notes	Human HTT caspase cleavage sites generate fragment-specific forms of the protein. Caspase-3/7 has been shown to generate cleavage sites at animo acids 513 and 552. Caspase-2 cleaves at amino acid 552 and caspase-6 at amino acid 586. The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid repeated freeze / thaw cycles.
Storage buffer	Preservative: 0.05% Sodium azide

	Constituents: 0.1% BSA, 99% PBS
Purity	Immunogen affinity purified
Primary antibody notes	Human HTT caspase cleavage sites generate fragment-specific forms of the protein. Caspase-3/7 has been shown to generate cleavage sites at animo acids 513 and 552. Caspase-2 cleaves at amino acid 552 and caspase-6 at amino acid 586.
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab155942 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

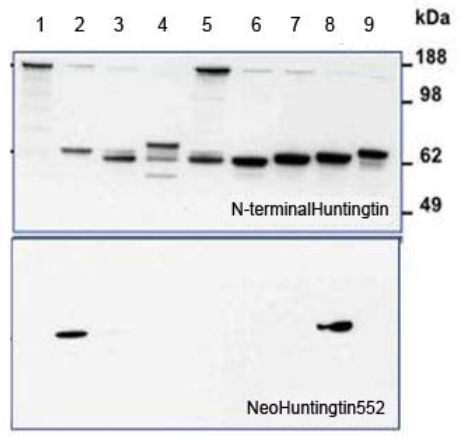
Application	Abreviews	Notes
IHC		1/50 - 1/200.
WB		1/500. Predicted molecular weight: 348 kDa.
ELISA		1/20 - 1/100.
ICC/IF		1/50 - 1/200.

Target

Function	May play a role in microtubule-mediated transport or vesicle function.
Tissue specificity	Expressed in the brain cortex (at protein level). 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.
Involvement in disease	Defects in HTT are the cause of Huntington disease (HD) [MIM:143100]. HD is an autosomal dominant neurodegenerative disorder characterized by involuntary movements (chorea), general motor impairment, psychiatric disorders and dementia. Onset of the disease occurs usually in the third or fourth decade of life and symptoms progressively worsen leading to death in 10 to 20 years. Onset and clinical course depend on the degree of poly-Gln repeat expansion, longer expansions resulting in earlier onset and more severe clinical manifestations. HD affects 1 in 10,000 individuals of European origin. Neuropathology of Huntington disease displays a distinctive pattern with loss of neurons, especially in the caudate and putamen (striatum).
Sequence similarities	Belongs to the huntingtin family. Contains 10 HEAT repeats.
Domain	The N-terminal Gln-rich and Pro-rich domain has great conformational flexibility and is likely to exist in a fluctuating equilibrium of alpha-helical, random coil, and extended conformations.
Post-translational modifications	Cleaved by apopain downstream of the polyglutamine stretch. The resulting N-terminal fragment is cytotoxic and provokes apoptosis. Forms with expanded polyglutamine expansion are specifically ubiquitinated by SYVN1, which promotes their proteasomal degradation.

Cellular localization	Cytoplasm. Nucleus. The mutant Huntingtin protein colocalizes with AKAP8L in the nuclear matrix of Huntington's disease neurons.

Images



Western blot - Anti-Huntingtin antibody (ab155942)

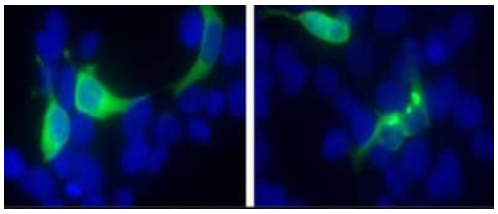
All lanes : Anti-Huntingtin antibody (ab155942) at 1/500 dilution

Lane 1 : -
Lane 2 : +C2
Lane 3 : +C3
Lane 4 : +C6
Lane 5 : +C7
Lane 6 : Huntingtin23Q(1-513)
Lane 7 : Huntingtin23Q(1-536)
Lane 8 : Huntingtin23Q(1-552)
Lane 9 : Huntingtin23Q(1-586)

Lysates/proteins at 20 µg per lane.

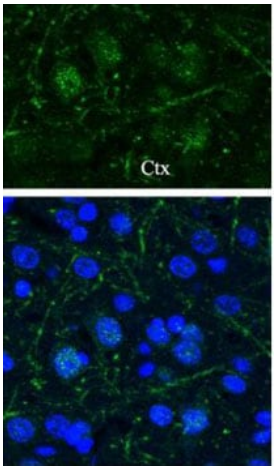
Predicted band size: 348 kDa
Additional bands at: 62 kDa (possible cleavage fragment)

Lanes 1-5 are 293Tcells expressing the full length Htt protein and treated with the various caspases. Lanes 6-9 are 293T overexpressing the different Htt fragments to demonstrate the antibody's specificity to that neo-epitope. Probed with N-terminal pan-Huntingtin antibody or (bottom panel) neoepitope specific rabbit polyclonal antibody.



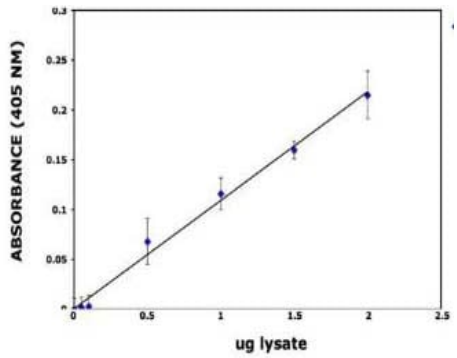
Immunocytochemistry/ Immunofluorescence - Anti-Huntingtin antibody (ab155942)

Immunofluorescent analysis of 293T cells (transfected with Huntingtin23Q and Huntingtin148Q stop constructs ending in amino acid 552), labeling Huntingtin ab155942 at 1/50 dilution.



Immunohistochemistry - Anti-Huntingtin antibody (ab155942)

Immunohistochemistry analysis of Mouse cortex tissue samples, labeling Huntingtin with ab155942 at 1/50 dilution (green). Blue: Tissue counterstained with nuclei stain.



ELISA - Anti-Huntingtin antibody (ab155942)

Sandwich Elisa analysis of 293T cells (overexpressing Huntingtin neo epitope 552), labeling Huntingtin protein (0, 0.5,1,1.5 and 2µg) with ab155942 at 1/20 dilution.

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