abcam

Product datasheet

Anti-Huntingtin (phospho S421) antibody ab2174

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Overview

Product name	Anti-Huntingtin (phospho S421) antibody
Description	Rabbit polyclonal to Huntingtin (phospho S421) ⓘ This product is a **fast track antibody**. It has been affinity purified and shows high titre values against the immunizing peptide by ELISA. **Read the terms of use »**
Host species	Rabbit
Specificity	Detects a 190kDa band in PC-3 cells, which may correspond to Huntingtin. Stains neuronal cytoplasm in immunohistochemistry (the expected localisation). The antibody has not been conclusively tested for specificity for phospho S421 Huntingtin.
Species reactivity	**Reacts with:** Human **Predicted to work with:** Pig
Immunogen	Synthetic peptide corresponding to Human Huntingtin aa 400-500 (phospho S421). Run BLAST with Run BLAST with
General notes	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. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
Storage buffer	Preservative: 0.01% Sodium azide Constituents: 0.42% Potassium phosphate, 0.87% Sodium chloride
Purity	Immunogen affinity purified

Clonality	Polyclonal
Isotype	IgG

Applications

Fast track antibodies constitute a diverse group of products that have been released to accelerate your research, but are not yet fully characterized. They have all been affinity purified and show high titre values against the immunizing peptide (by ELISA).

Fast track terms of use

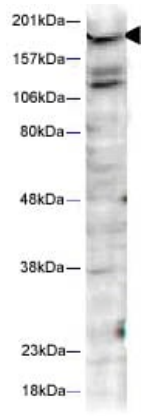
Application	Abreviews	Notes
IHC-P		Use at an assay dependent concentration.
WB		Use at an assay dependent concentration. Predicted molecular weight: 348 kDa.
ELISA		Use at an assay dependent concentration. This antibody gave a positive result in ELISA against the immunizing peptide .

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

This Fast-Track antibody is not yet fully characterised. These images represent **inconclusive preliminary data**.

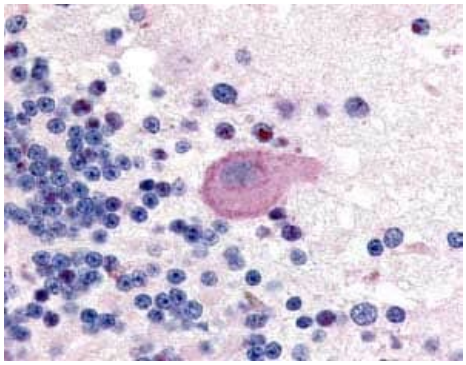


Western blot - Anti-Huntingtin (phospho S421) antibody (ab2174)

Anti-Huntingtin (phospho S421) antibody (ab2174) at 1/1000 dilution + human PC-3 cell lysate

Predicted band size: 348 kDa
Observed band size: 190 kDa
Additional bands at: 120 kDa, 130 kDa. We are unsure as to the identity of these extra bands.

The 190kDa band may correspond to Huntingtin. However, it is not clear whether the antibody is specific for the phospho S421 form.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Huntingtin (phospho S421) antibody (ab2174)

ab2174 was used at a 1:100 dilution to detect phosphorylated Huntingtin by immunohistochemistry in human brain cerebellum. Positive cytoplasmic staining is observed in neurons. Tissue was formalin-fixed and paraffin embedded. Detection was with AEC (pink), nuclear counterstaining with Haemotoxylin (blue).

Terms and conditions

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