

Anti-Huntington HTT Antibody

Catalog Number: A00134

About HTT

Huntingtin (also known as Huntington's disease protein, Htt and HD protein) is the protein product of a disease gene linked to Huntington's disease, a neuro-degenerative disorder characterized by loss of striatal neurons. This may be caused by an expanded, unstable trinucleotide repeat in the huntingtin gene, which translates as a polyglutamine repeat in the protein product (see partial protein sequence below). The huntingtin gene locus is large, spanning 180 kb and consisting of 67 exons. It is expressed as 2 alternatively polyadenylated forms displaying different relative abundance in various fetal and adult tissues. 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. Normal huntingtin protein shows a cytoplasmic localization. This protein is 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. Anti-Huntington antibodies are ideal for researchers interested in Apoptosis, Autophagy, Cytoskeleton, Neurodegeneration, Neuroscience, and Neuronal Cell Markers research.

Overview

Product Name	Anti-Huntington HTT Antibody
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-Huntington HTT Antibody (Catalog # A00134). Tested in ELISA, WB applications. This antibody reacts with Human, Mouse, Rat.
Application	ELISA, WB
Clonality	Polyclonal
Formulation	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2, 50% (v/v) Glycerol
Storage Instructions	Store vial at -20°C prior to opening. Aliquot contents and freeze at -20°C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4°C as an undiluted liquid. Dilute only prior to immediate use. Expiration date is six (6) months from date of opening. (Ship on dry ice.)
Host	Rabbit
Uniprot ID	P42858

Technical Details

Immunogen	Huntington affinity purified antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide corresponding to the near N-terminus of human Huntington disease protein.
Predicted Reactive Species	Bovine, Canine, Monkey

Isotype	IgG
Form	Liquid (sterile filtered)
Concentration	1.1 mg/ml by UV absorbance at 280 nm
Purification	Anti-Huntingtin was affinity purified from monospecific antiserum by immunoaffinity chromatography. This antibody is specific towards HTT. A BLAST analysis was used to suggest cross-reactivity with Human, Mouse, and Rat based on 100% sequence homology. Cross-reactivity with HTT from other sources has not been determined.
Suggested Dilutions	<p>Dilute the sample so that the expected range of concentrations fall within the detection range of this kit.</p> <p>If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples.</p> <p>Some PubMed article(s) citing the expression level of this target are as follows:</p> <p>Boster Bio's internal QC testing used:</p> <p>ELISA: 1:20,000 - 1:60,000</p> <p>IHC: 1:100-1:500</p> <p>IF Microscopy: 1:100-1:500</p> <p>WB: 0.1 µg/ml</p>

Anti-Huntington HTT Antibody (A00134) Images

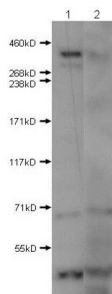


Figure 1. Western blot analysis of HTT using anti-HTT antibody (A00134).

Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions.

After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-HTT antigen affinity purified polyclonal antibody (Catalog # A00134) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-Rabbit IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # SA1022) with Tanon 5200 system. A specific band was detected for HTT.

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