abcam

Product datasheet

Anti-Ataxin 3 antibody [EPR22418-147] ab221143

Recombinant RabMAb

4 Images

Overview

Product name	Anti-Ataxin 3 antibody [EPR22418-147]
Description	Rabbit monoclonal [EPR22418-147] to Ataxin 3
Host species	Rabbit
Tested applications	**Suitable for:** WB, Indirect ELISA **Unsuitable for:** Flow Cyt,ICC/IF,IHC-P or IP
Species reactivity	**Reacts with:** Mouse, Rat, Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: U-87 MG, NIH/3T3 and C6 whole cell lysate; Human brain, spleen and cerebellum tissue lysate; Mouse skin and spleen tissue lysate; Rat brain and cerebellum tissue lysate.
General notes	This product is a recombinant monoclonal antibody, which offers several advantages including: - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production For more information **see here**. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**.

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 long term. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR22418-147

Isotype IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab221143 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
WB		1/1000. Detects a band of approximately 35, 45 kDa (predicted molecular weight: 42 kDa).
Indirect ELISA		Use a concentration of 1 µg/ml.

Application notes Is unsuitable for Flow Cyt,ICC/IF,IHC-P or IP.

Target

Function Interacts with key regulators (CBP, p300 and PCAF) of transcription and represses transcription. Acts as a histone-binding protein that regulates transcription. Acts as a deubiquitinating enzyme.

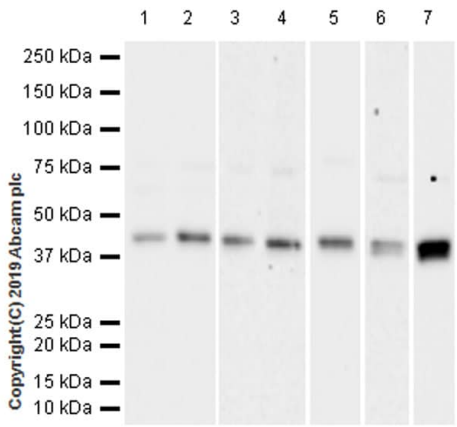
Tissue specificity Ubiquitous.

Involvement in disease Defects in ATXN3 are the cause of spinocerebellar ataxia type 3 (SCA3) [MIM:109150]; also known as Machado-Joseph disease (MJD). Spinocerebellar ataxia is a clinically and genetically heterogeneous group of cerebellar disorders. Patients show progressive incoordination of gait and often poor coordination of hands, speech and eye movements, due to degeneration of the cerebellum with variable involvement of the brainstem and spinal cord. SCA3 belongs to the autosomal dominant cerebellar ataxias type I (ADCA I) which are characterized by cerebellar ataxia in combination with additional clinical features like optic atrophy, ophthalmoplegia, bulbar and extrapyramidal signs, peripheral neuropathy and dementia. The molecular defect in SCA3 is the a CAG repeat expansion in ATXN3 coding region. Longer expansions result in earlier onset and more severe clinical manifestations of the disease.

Sequence similarities Contains 1 Josephin domain.
Contains 3 UIM (ubiquitin-interacting motif) repeats.

Cellular localization Nucleus matrix. Predominantly nuclear, but not exclusively, inner nuclear matrix.

Images



Western blot - Anti-Ataxin 3 antibody [EPR22418-147] (ab221143)

All lanes : Anti-Ataxin 3 antibody [EPR22418-147] (ab221143) at 1/5000 dilution

Lane 1 : NIH/3T3 (mouse embryo fibroblast cell line), whole cell lysate
Lane 2 : Neuro-2a (mouse neuroblastoma cell line), whole cell lysate
Lane 3 : C6 (rat glial tumor glial cell), whole cell lysate
Lane 4 : Mouse skin tissue lysate
Lane 5 : Mouse spleen tissue lysate
Lane 6 : Rat brain tissue lysate
Lane 7 : Rat cerebellum tissue lysate

Lysates/proteins at 20 µg per lane.

Secondary
All lanes : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/100000 dilution

Predicted band size: 42 kDa
Observed band size: 45 kDa

Blocking/diluting buffer and concentration: 5% NFDM/TBST

Exposure time:

Lanes 1-2: 26 seconds

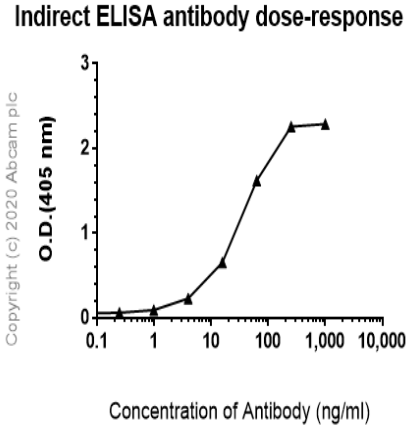
Lanes 3-4: 3 minutes

Lane 5: 15 seconds

Lane 6: 3 minutes

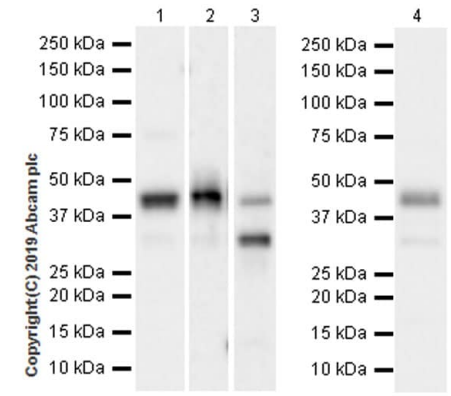
Lane 7: 59 seconds

The molecular weight is consistent with what has been described in the literature (PMID: 30455355).



Indirect ELISA - Anti-Ataxin 3 antibody [EPR22418-147] (ab221143)

Indirect ELISA using ab221143 at varying antibody concentrations (1000-0 ng/ml) and Human ATXN3 antigen at 1000 ng/ml. Alkaline Phosphatase-conjugated AffiniPure Goat Anti-Rabbit IgG (H+L) at 1/2500 dilution was used as a secondary antibody.



Western blot - Anti-Ataxin 3 antibody [EPR22418-147] (ab221143)

Lanes 1-3 : Anti-Ataxin 3 antibody [EPR22418-147] (ab221143) at 1/1000 dilution
Lane 4 : Anti-Ataxin 3 antibody [EPR22418-147] (ab221143) at 1/5000 dilution

Lane 1 : U-87 MG (human glioblastoma-astrocytoma epithelial cell line), whole cell lysate
Lane 2 : Human brain tissue lysate
Lane 3 : Human spleen tissue lysate
Lane 4 : Human cerebellum tissue lysate

Lysates/proteins at 20 µg per lane.

Secondary
Lane 1 : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/100000 dilution
Lanes 2-4 : VeriBlot for IP Detection Reagent (HRP) (**ab131366**) at 1/1000 dilution

Predicted band size: 42 kDa
Observed band size: 45, 35 kDa

Blocking/diluting buffer and concentration: 5% NFDM/TBST

Exposure times:

Lane 1: 10 seconds

Lanes 2-3: 125 seconds

Lane 4: 5 seconds

The full-length ataxin-3 (45kDa) and a 35-kDa band, likely to be an ataxin-3 isoform or fragment, are observed. The molecular weights are consistent with what have been described in the literature (PMID: 30455355 and UniProt annotation).