Anti-Alx1 Antibody

HA500565

Product Type:	Rabbit polyclonal IgG, primary antibodies
Species reactivity:	Human, Mouse, Rat
Applications:	WB, IHC-P
Molecular Wt:	Predicted band size: 37 kDa

Description: ALX homeobox protein 1 is a protein that in humans is encoded by the ALX1 gene. The specific function of this gene has yet to be determined in humans; however, in rodents, it is necessary for survival of the forebrain mesenchyme and may also be involved in development of the cervix. Mutations in the mouse gene lead to neural tube defects such as acrania and meroanencephaly. In Burmese cats, especially the lineage known as Contemporary Burmese, a deletion of four aminoacids in ALX1 is common. When heterozygous, the mutation causes brachycephaly; when homozygous it causes a fatal head malformation known as Burmese head defect. In Darwin's finches, inhabiting the Galapagos islands, ALX1 has been linked to the diversity of beak shapes.

Immunogen: Recombinant protein within human Alx1 aa 1-326.

Positive control: MCF7 cell lysate, HepG2 cell lysate, Mouse articular cartilage tissue lysate, Rat brain tissue lysate, Rat embryo tissue lysate, human trachea tissue.

Subcellular location: Nucleus.

Database links: SwissProt: Q15699 Human | Q8C8B0 Mouse | Q63087 Rat

Recommended Dilutions:

WB	1:5,000
IHC-P	1:500

Storage Buffer: 1*PBS (pH7.4), 0.1% BSA, 40% Glycerol, 0.2% Proclean 950.

Storage Instruction: Shipped at 4℃. Store at +4℃ short term (1-2 weeks). It is recommended to aliquot into single-use upon delivery. Store at -20℃ long term.

Purity: Protein A affinity purified.

Images

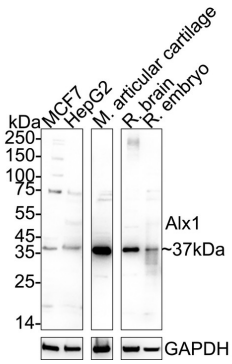

Fig1: Western blot analysis of Alx1 on different lysates with Rabbit anti-Alx1 antibody (HA500565) at 1/5,000 dilution.

Lane 1: MCF7 cell lysate (30 µg/Lane)
Lane 2: HepG2 cell lysate (30 µg/Lane)
Lane 3: Mouse articular cartilage tissue lysate (20 µg/Lane)
Lane 4: Rat brain tissue lysate (20 µg/Lane)
Lane 5: Rat embryo tissue lysate (20 µg/Lane)

Predicted band size: 37 kDa
Observed band size: 37 kDa

Exposure time: 25 seconds; ECL: K1801;
4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (HA500565) at 1/5,000 dilution was used in 5% NFDM/TBST at 4℃ overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

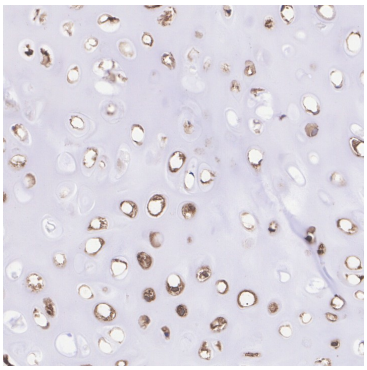

Fig2: Immunohistochemical analysis of paraffin-embedded human trachea tissue with Rabbit anti-Alx1 antibody (HA500565) at 1/500 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (HA500565) at 1/500 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

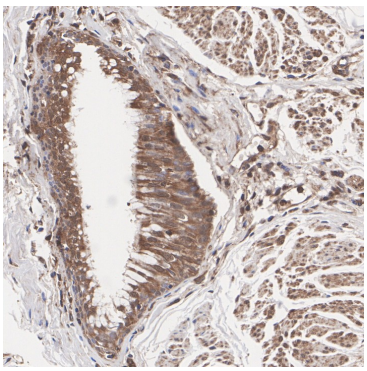

Fig3: Immunohistochemical analysis of paraffin-embedded human trachea tissue with Rabbit anti-Alx1 antibody (HA500565) at 1/500 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (HA500565) at 1/500 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

Background References

1. Pini J et al. ALX1-related frontonasal dysplasia results from defective neural crest cell development and migration. EMBO Mol Med. 2022 Jul
2. Iyyanar PPR et al. Alx1 Deficient Mice Recapitulate Craniofacial Phenotype and Reveal Developmental Basis of ALX1-Related Frontonasal Dysplasia. Front Cell Dev Biol. 2022 Jan