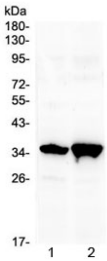
Six3 Antibody (N-Terminal Region) (R32927)

Catalog No.	Formulation	Size
R32927	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

Availability	1-3 business days
Species Reactivity	Mouse, Rat
Predicted Reactivity	Human
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity
Buffer	Lyophilized from 1X PBS with 2.5% BSA, 0.025% sodium azide
UniProt	O95343
Applications	Western Blot: 0.5-1ug/ml
Limitations	This Six3 antibody is available for research use only.



Western blot testing of 1) rat brain and 2) mouse brain with Six3 antibody at 0.5ug/ml. Predicted molecular weight ~35 kDa.

Description

Homeobox protein SIX3 is a protein that in humans is encoded by the SIX3 gene. This gene encodes a member of the sine oculishomeobox transcription factor family. The encoded protein plays a role in eye development. Mutations in SIX3 are the cause of a severe brain malformation, called holoprosencephaly type 2 (HPE2). In HPE2, the brain fails to separate into two hemispheres during early embryonic development, leading to eye and brain malformations, which result in serious facial abnormalities. A mutant zebrafish knockout model has been developed, in which the anterior part of the

head was missing due to the atypical increase of Wnt1 activity. When injected with SIX3, these zebrafish embryos were able to successfully develop a normal forebrain. When SIX3 was turned off in mice, resulting in a lack of retina formation due to excessive expression of Wnt8b in the region where the forebrain normally develops. Both of these studies demonstrate the importance of SIX3 activity in brain and eye development.

Application Notes

Optimal dilution of the Six3 antibody should be determined by the researcher.

Immunogen

Amino acids 1-32 (MVFRSPLDLYSSHFLLPNFADSHHRSILLASS) were used as the immunogen for the Six3 antibody.

Storage

After reconstitution, the Six3 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

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