



Anti-PITX3 (N-terminal) monoclonal antibody, clone 23H5.2 (CABT-B1169)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Immunogen	KLH-conjugated linear peptide corresponding to a sequence within the N-terminal region of human PITX3.
Isotype	IgG2a, κ
Source/Host	Mouse
Species Reactivity	Human
Clone	23H5.2
Purification	Protein G Purified
Conjugate	Unconjugated
Applications	WB
Epitope	N-terminal region.
Molecular Weight	~32 kDa observed. Uncharacterized band(s) may appear in some lysates.
Format	Liquid
Concentration	Please refer to lot specific datasheet.
Size	100 µg
Buffer	0.1 M Tris-Glycine (pH 7.4), 150 mM NaCl with 0.05% sodium azide.
Preservative	0.05% Sodium Azide

BACKGROUND

Introduction

Pituitary homeobox 3 (UniProt O75364; also known as Homeobox protein PITX3, Paired-like homeodomain transcription factor 3) is encoded by the PITX3 (also known as ASMD, CTPP4, CTRCT11, PTX3) gene (Gene ID 5309) in human. PITX3 is a bicoid-related homeodomain transcription factor critical for the development of the ocular lens, mesencephalic dopaminergic neurons and skeletal muscle. PITX3 exerts its developmental impact on dopaminergic neurons by directly regulating the expression of a cascade of downstream genes, including TH, VMAT2, DAT, BDNF, and GDNF. PITX3 and the related PITX2 are both key regulators of intracellular redox state and play an important role in preventing DNA damage during fetal myogenesis. Human PITX3 gene mutations are linked to cataracts and anterior segment abnormalities and PITX3 polymorphisms are associated with Parkinsons disease. In aphakia (ak) mice, deletions in the Pitx3 promoter region cause abnormal lens development.

GENE INFORMATION

Entrez Gene ID

[5309](#)

UniProt ID

[O75364](#)
