

Anti-PITX3 Antibody (5L490)

Product Details

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| Ig Type: | Rabbit IgG |
| Reactivity: | Human |
| Conjugation: | Unconjugated |
| Clone: | 5L490 |
| Purification: | Affinity-chromatography |

Applications

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| Verified Activity: | <p>1. Immunofluorescence staining of A549 with TMAH-00982 at 1:20, counter-stained with DAPI. The cells were fixed in 4% formaldehyde and blocked in 10% normal Goat Serum. The cells were then incubated with the antibody overnight at 4°C. The secondary antibody was Alexa Fluor 520-conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).</p> <p>2. Overlay Peak curve showing SH-SY5Y cells stained with TMAH-00982 (red line) at 1:50. The cells were fixed in 4% formaldehyde and permeated by 0.2% TritonX-100. Then 10% normal goat serum to block non-specific protein-protein interactions followed by the antibody (1µg/1*10⁶ cells) for 45min at 4°C. The secondary antibody used was FITC-conjugated Goat Anti-rabbit IgG(H+L) at 1:200 dilution for 35min at 4°C. Control antibody (green line) was rabbit IgG (1µg/1*10⁶ cells) used under the same conditions. Acquisition of >10,000 events was performed.</p> |
| Application: | ELISA,FCM,IF |
| Recommended | IF:1:50-1:200; FCM:1:50-1:200. |

Properties

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| Stability & Storage: | Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles. |
| Shipping: | Shipping with blue ice. |

Antigen Details

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| Immunogen: | A synthetic peptide: Human PITX3 |
| Antigen Species: | Human |
| Gene ID: | 5309 |
| Uniprot ID: | O75364 |
| Synonyms: | PITX3;Pituitary homeobox 3;Homeobox protein PITX3;Paired-like homeodomain transcription factor 3;PITX 3 |
| Biology Area: | Epigenetics and Nuclear Signaling, Neuroscience |

Research Background

Transcriptional regulator which is important for the differentiation and maintenance of meso-diencephalic dopaminergic (mdDA) neurons during development. In addition to its importance during development, it also has roles in the long-term survival and maintenance of the mdDA neurons. Activates NR4A2/NURR1-mediated transcription of genes such as SLC6A3, SLC18A2, TH and DRD2 which are essential for development of mdDA

neurons. Acts by decreasing the interaction of NR4A2/NURR1 with the corepressor NCOR2/SMRT which acts through histone deacetylases (HDACs) to keep promoters of NR4A2/NURR1 target genes in a repressed deacetylated state. Essential for the normal lens development and differentiation. Plays a critical role in the maintenance of mitotic activity of lens epithelial cells, fiber cell differentiation and in the control of the temporal and spatial activation of fiber cell-specific crystallins. Positively regulates FOXE3 expression and negatively regulates PROX1 in the anterior lens epithelium, preventing activation of CDKN1B/P27Kip1 and CDKN1C/P57Kip2 and thus maintains lens epithelial cells in cell cycle.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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