SunLong Biotech Co.,LTD
Tel: 0086-571-56623320 Fax:0086-571-56623318
E-mail:sales@sunlongbiotech.com
www.sunlongbiotech.com

**[ Primary Antibody ]**

# Rabbit Anti-VAX1 antibody

**Catalog Number: SL11496R**

**FOR RESEARCH USE ONLY**

**[ DATASHEET ]**

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|---|---|
| **Host:** | Rabbit |
| **Isotype:** | IgG |
| **Clonality:** | Polyclonal |
| **Target:** | VAX1 |
| **Immunogen:** | KLH conjugated synthetic peptide derived from human VAX1: 133-200/334 |
| **Purification:** | affinity purified by Protein A |
| **Concentration:** | 1mg/ml |
| **Storage:** | 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol. Shipped at 4℃. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. |
| **Applications:** | WB=1:500-2000<br>ICC/IF=1:100-500<br>Flow-Cyt=1μg/Test<br>not yet tested in other applications.<br>optimal dilutions/concentrations should be determined by the end user. |
| **Reactivity:** | Human, Mouse, Rat, (predicted: Chicken, Dog, Pig, Cow) |
| **Predicted MW.:** | 35kDa |
| **Subcellular Location:** | The nucleus |
| **Background:** | The homeobox DNA-binding domain is a 60 amino acid motif that is conserved among many species and functions to bind DNA via a helix-turn-helix structure, thereby playing a role in transcriptional regulation and the control of gene expression. VAX1 (ventral anterior homeobox 1) is a 334 amino acid protein that localizes to the nucleus and contains one homeobox DNA-binding domain. Expressed as multiple alternatively spliced isoforms, VAX1 is required for major tract formation and axon guidance in the developing brain and may play a role in the differentiation of various structures, including the optic stalk, the neuroretina and the pigmented epithelium. The gene encoding VAX1 maps to human chromosome 10, which houses over 1,200 genes and comprises nearly 4.5% of the human genome. **Function:** Required for axon guidance and major tract formation in the developing forebrain. May contribute to the differentiation of the neuroretina, |

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|---|---|
| | pigmented epithelium and optic stalk.<br>**Subcellular Location:** Nucleus.<br>DISEASE: Defects in VAX1 are the cause of microphthalmia, syndromic, type 11 (MCOPS11) [MIM:614402]. A rare clinical entity including as main characteristics microphthalmia and small optic nerves, cleft lip and palate, absence of corpus callosum, hippocampal malformations, and absence of the pineal gland. Microphthalmia is a disorder of eye formation, ranging from small size of a single eye to complete bilateral absence of ocular tissues (anophthalmia). In many cases, microphthalmia/anophthalmia occurs in association with syndromes that include non-ocular abnormalities.<br>**Similarity:** Belongs to the EMX homeobox family.<br>Contains 1 homeobox DNA-binding domain.<br>**Database links:**<br>**Entrez Gene:** 11023 Human<br>**Entrez Gene:** 22326 Mouse<br>**Entrez Gene:** 64571 Rat<br>Omim: 604294 Human<br>**SwissProt:** Q5SQQ9 Human<br>**SwissProt:** Q2NKI2 Mouse<br>**SwissProt:** Q9JM00 Rat<br>**Unigene:** 441536 Human<br>**Unigene:** 23801 Mouse<br>**Unigene:** 48764 Rat |

## [ VALIDATION IMAGES ]

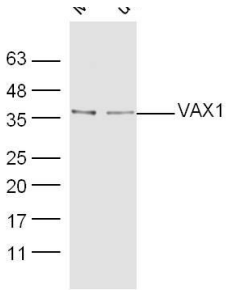



Figure 1. Sample: MCF-7 Cell (Human) Lysate at 40 ug U937 Cell (Human) Lysate at 40 ug Primary: Anti-VAX1 (SL11496R) at 1/300 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 35 kD Observed band size: 37 kD

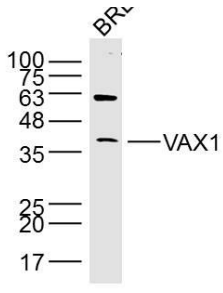



Figure 2. Sample: BRL-3A Cell (Rat) Lysate at 40 ug Primary: Anti- VAX1 (SL11496R) at 1/300 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 35 kD Observed band size: 37 kD

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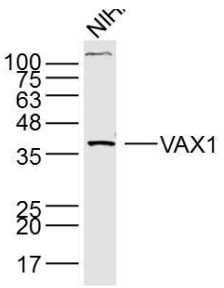



Figure 3. Sample: NIH/3T3 Cell (Mouse) Lysate at 40 ug Primary: Anti- VAX1 (SL11496R) at 1/300 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 35 kD Observed band size: 37 kD

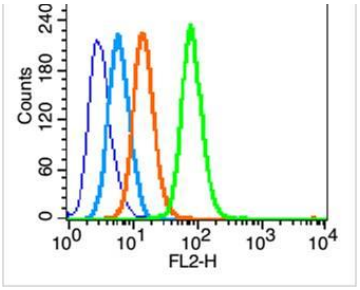



Figure 4. Blank control (blue line): Hep G2 (fixed with 70% ethanol (Overnight at 4°C) and then permeabilized with 90% methanol for 20 min at -20°C). Primary Antibody (green line): Rabbit Anti-VAX1 antibody (SL11496R),Dilution: 0.2µg /10^6 cells; Isotype Control Antibody (orange line): Rabbit IgG. Secondary Antibody (white blue line): Goat anti-rabbit IgG-PE,Dilution: 1µg /test

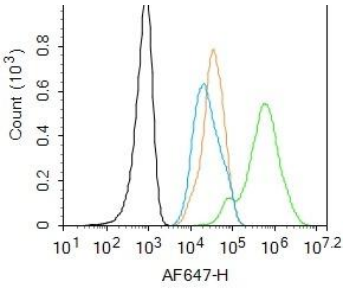



Figure 5. Blank control:A431. Primary Antibody (green line): Rabbit Anti-VAX1 antibody (SL11496R) Dilution: 1µg /10^6 cells; Isotype Control Antibody (orange line): Rabbit IgG. Secondary Antibody: Goat anti-rabbit IgG-BF647 Dilution: 1µg /test. Protocol The cells were fixed with 4% PFA (10min at room temperature)and then permeabilized with 90% ice-cold methanol for 20 min at -20°C.The cells were then incubated in 5%BSA to block non-specific protein-protein interactions for 30 min at room temperature.Cells stained with Primary Antibody for 30 min at room temperature. The secondary antibody used for 40 min at room temperature. Acquisition of 20,000 events was performed

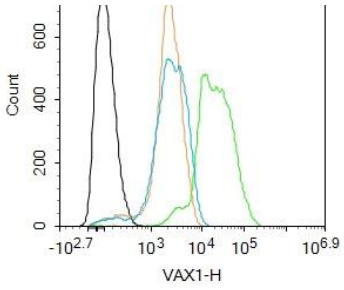



Figure 6. Blank control (black line) :A549. Primary Antibody (green line): Rabbit Anti-VAX1 antibody (SL11496R) Dilution:1ug/Test; Secondary Antibody (white blue line) : Goat anti-rabbit IgG-BF488 Dilution: 0.5ug/Test. Isotype control (orange line) : Normal Rabbit IgG Protocol The cells were fixed with 4% PFA (10min at room temperature)and then permeabilized with 90% ice-cold methanol for 20 min at -20°C, The cells were then incubated in 5%BSA to block non-specific protein-protein interactions for 30 min at room temperature.Cells stained with Primary Antibody for 30 min at room temperature. The secondary antibody used for 40 min at room temperature. Acquisition of 20,000 events was performed

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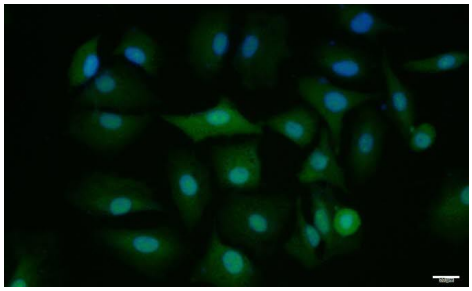


Figure 7. A549 cell; 4% Paraformaldehyde-fixed; Triton X-100 at room temperature for 20 min; Blocking buffer (normal goat serum, C-0005) at 37°C for 20 min; Antibody incubation with (VAX1) polyclonal Antibody, Unconjugated (SL11496R) 1:100, 90 minutes at 37°C; followed by a conjugated Goat Anti-Rabbit IgG antibody at 37°C for 90 minutes, DAPI (blue, C02-04002) was used to stain the cell nuclei

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