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

Rabbit Anti-FOXO1 antibody

SL2537R

Product Name:	FOXO1
Chinese Name:	叉头蛋白O1抗体
Alias:	Forkhead box protein O1; Afxh; AI876417; FKHR; Fkhr1; Foxo1a; Forkhead; FKH 1; FKH1; FKH1; FKHR; FKHR; Forkhead (Drosophila) homolog 1 (rhabdomyosarcoma); Forkhead (Drosophila) homolog 1 (rhabdomyosarcoma); Forkhead box O1; Forkhead box protein O1; Forkhead box protein O1A; Forkhead in rhabdomyosarcoma; Forkhead, Drosophila, homolog of, in rhabdomyosarcoma; FOXO1; FOXO1; FOXO1_HUMAN; FOXO1A.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Dog,Pig,Cow,
Applications:	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800IF=1:100-500（Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	70kDa
Cellular localization:	The nucleuscytoplasmic
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human FOXO1:201-300/655
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	This gene belongs to the forkhead family of transcription factors which are characterized by a distinct forkhead domain. The specific function of this gene has not yet been

	determined; however, it may play a role in myogenic growth and differentiation. Translocation of this gene with PAX3 has been associated with alveolar rhabdomyosarcoma. [provided by RefSeq]. **Function:** Transcription factor which acts as a regulator of cell responses to oxidative stress. In the presence of KIRT1, mediates down-regulation of cyclin D1 and up-regulation of CDKN1B levels which are required for cell transition from proliferative growth to quiescence. Triggers death of postmitotic neurons when phosphorylated by CDK1. Activates transcription of PMAIP1. **Subunit:** Interacts with LRPPRC. Interacts with SIRT1 and this interaction requires the presence of KRIT1. Interacts with NLK. Binds to CDK1 and 14-3-3 proteins. **Subcellular Location:** Cytoplasm. Nucleus. Note=Shuttles between cytoplasm and nucleus. Translocates to the nucleus upon oxidative stress induced phosphorylation at Ser-212 by STK4/MST1. Translocates to the nucleus upon phosphorylation of Thr-24, Ser-256 and Ser-322 by SGK1. **Tissue Specificity:** Ubiquitous. **Post-translational modifications:** Phosphorylated by AKT1; insulin-induced. Phosphorylated by NLK, which inhibits transcriptional activity and promotes nuclear export. IGF1 rapidly induces phosphorylation of Ser-256, Thr-24, and Ser-319. Phosphorylation of Ser-256 decreases DNA-binding activity and promotes the phosphorylation of Thr-24, and Ser-319, permitting phosphorylation of Ser-322 and Ser-325, probably by CK1, leading to nuclear exclusion and loss of function. Phosphorylation of Ser-329 is independent of IGF1 and leads to reduced function. Phosphorylated upon DNA damage, probably by ATM or ATR. Phosphorylation of Ser-249 by CDK1 disrupts 14-3-3 proteins binding and thereby promotes FOXO1 nuclear accumulation and subsequent transcription activation and cell death. Phosphorylated by STK4/MST1 on Ser-212 upon oxidative stress. Phosphorylated on Thr-24, Ser-256 and Ser-322 by SGK1 resulting in its translocation from the nucleus to the cytoplasm. **DISEASE:** Defects in FOXO1 are a cause of rhabdomyosarcoma type 2 (RMS2) [MIM:268220]. It is a form of rhabdomyosarcoma, a highly malignant tumor of striated muscle derived from primitive mesenchimal cells and exhibiting differentiation along rhabdomyoblastic lines. Rhabdomyosarcoma is one of the most frequently occurring soft tissue sarcomas and the most common in children. It occurs in four forms: alveolar, pleomorphic, embryonal and botryoidal rhabdomyosarcomas. Note=Chromosomal aberrations involving FOXO1 are found in rhabdomyosarcoma. Translocation (2;13)(q35;q14) with

PAX3; translocation t(1;13)(p36;q14) with PAX7. The resulting protein is a transcriptional activator.

Similarity:
Contains 1 fork-head DNA-binding domain.

SWISS:
Q12778

Gene ID:
2308

Database links:

Entrez Gene: 2308Human

Entrez Gene: 56458Mouse

Entrez Gene: 84482Rat

Omim: 136533Human

SwissProt: Q12778Human

SwissProt: Q9R1E0Mouse

SwissProt: G3V7R4Rat

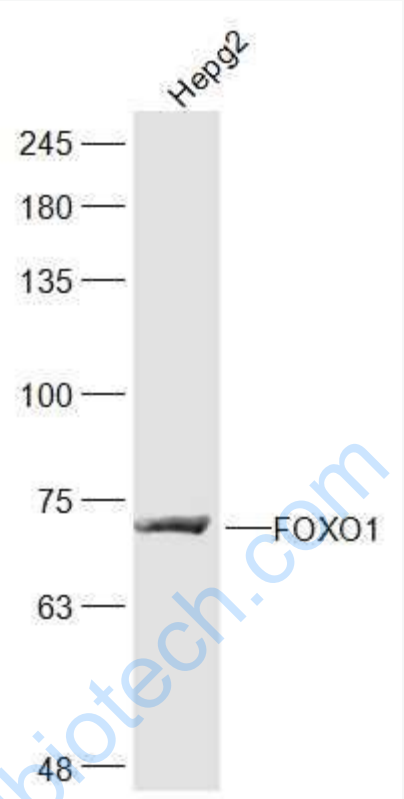
Unigene: 370666Human

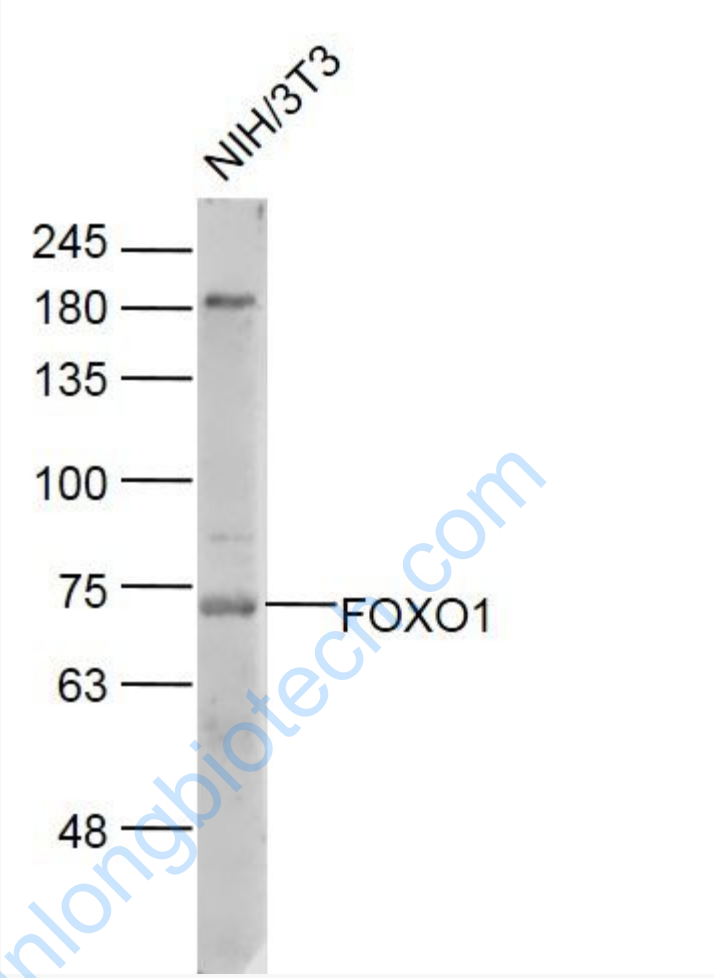
Unigene: 29891Mouse

Unigene: 116108Rat

Important Note:
This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

FoxO家族蛋白是一类转录因子，通过结合到下游基因启动子而激活一系列重要基因来调节细胞的重要生命过程。FoxO1（叉头蛋白家族1）是FOXO家族的重要一员，该蛋白主要调节细胞衰老、细胞周期、代谢及抗Tumour的作用。
FoxO1是诱导Autophagy的关键蛋白，其抗癌作用与其诱导自噬功能密切相关。

Picture:	 Sample: Hepg2(Human) Cell Lysate at 30 ug Primary: Anti-FOXO1 (SL2537R) at 1/300 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 70 kD Observed band size: 70 kD



Sample:

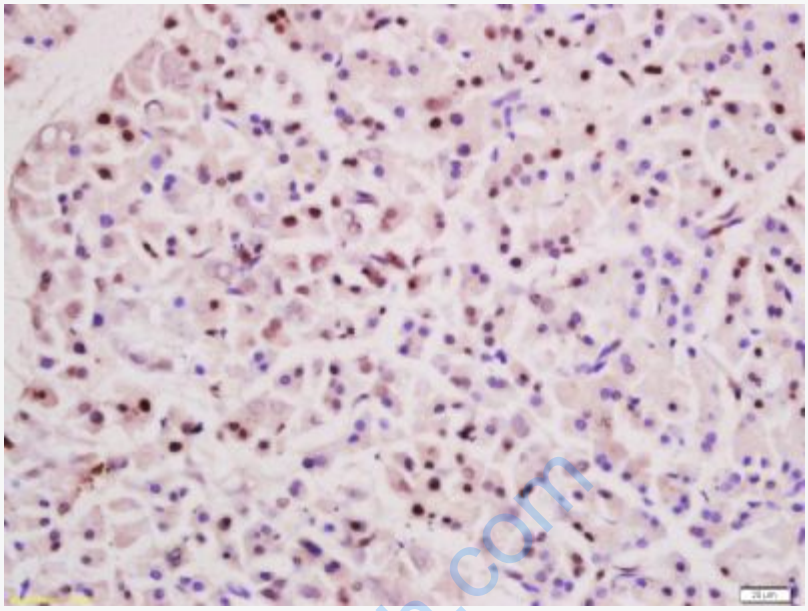
NIH/3T3 (mouse)Lysate at 30 ug

Primary: Anti- FOXO1 (SL2537R) at 1/300 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

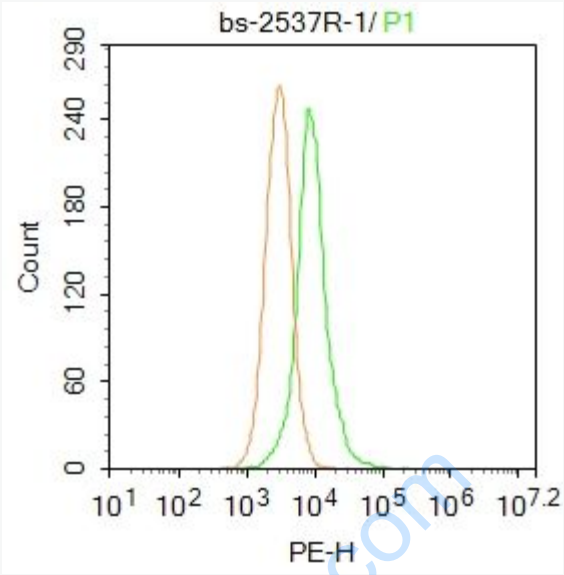
Predicted band size: 70 kD

Observed band size: 70 kD



Tissue/cell: rat pancreas tissue; 4% Paraformaldehyde-fixed and paraffin-embedded; Antigen retrieval: TBS buffer (0.01M, pH7.4), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37℃ for 20 min;

Incubation: Anti-FOXO1 Polyclonal Antibody, Unconjugated(SL2537R) 1:100, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining



Blank control: HepG2.

Primary Antibody (green line): Rabbit Anti-FOXO1 antibody (SL2537R)

Dilution: 1μg /10^6 cells;

Isotype Control Antibody (orange line): Rabbit IgG .

Secondary Antibody : Goat anti-rabbit IgG-PE

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℃. The cells were then incubated in 5%BSA to block non-specific protein-protein interactions for 30 min at 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.