

Anti-Phospho-FKHR (Ser256) FOXO1 Antibody

Catalog Number: P00073

About FOXO1

Transcription factor that is the main target of insulin signaling and regulates metabolic homeostasis in response to oxidative stress. Binds to the insulin response element (IRE) with consensus sequence 5'-TT[G/A]TTTGTG-3' and the related Daf-16 family binding element (DBE) with consensus sequence 5'-TT[G/A]TTTAC-3'. Activity suppressed by insulin. Main regulator of redox balance and osteoblast numbers and controls bone mass. Orchestrates the endocrine function of the skeleton in regulating glucose metabolism. Acts synergistically with ATF4 to suppress osteocalcin/BGLAP activity, increasing glucose levels and triggering glucose intolerance and insulin insensitivity. Also suppresses the transcriptional activity of RUNX2, an upstream activator of osteocalcin/BGLAP. In hepatocytes, promotes gluconeogenesis by acting together with PPARGC1A to activate the expression of genes such as IGFBP1, G6PC and PPCK1. Important regulator of cell death acting downstream of CDK1, PKB/AKT1 and SKT4/MST1. Promotes neural cell death. Mediates insulin action on adipose. Regulates the expression of adipogenic genes such as PPARG during preadipocyte differentiation and, adipocyte size and adipose tissue-specific gene expression in response to excessive calorie intake. Regulates the transcriptional activity of GADD45A and repair of nitric oxide-damaged DNA in beta-cells.

Overview

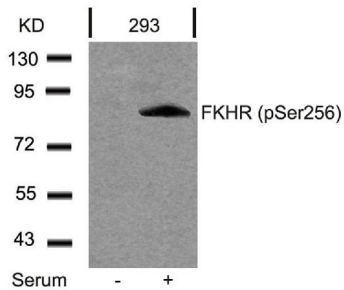
Product Name	Anti-Phospho-FKHR (Ser256) FOXO1 Antibody
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-Phospho-FKHR (Ser256) FOXO1 Antibody (Catalog # P00073). Tested in WB, IHC, IF applications. This antibody reacts with Human, Mouse, Rat.
Application	IF, IHC, WB
Clonality	Polyclonal
Formulation	Supplied at 1.0mg/mL in phosphate buffered saline (without Mg ²⁺ and Ca ²⁺), pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Storage Instructions	Store at -20°C for one year. For short term storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	Q12778

Technical Details

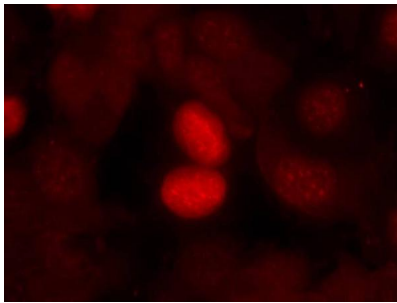
Immunogen	A synthesized peptide derived from human FOXO1A around the phosphorylation site of Ser256.
Predicted Reactive Species	Bovine, Chicken, Xenopus Laevis, Xenopus Tropicalis, Zebrafish
Cross Reactivity	No cross reactivity with other proteins.
Isotype	IgG

Form	Liquid
Concentration	1 mg/ml
Purification	The antibody is from purified rabbit serum by affinity purification via sequential chromatography on phospho-peptide and non-phospho-peptide affinity columns.
Suggested Dilutions	<p>Dilute the sample so that the expected range of concentrations fall within the detection range of this kit.</p> <p>If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples.</p> <p>Some PubMed article(s) citing the expression level of this target are as follows:</p> <p>Boster Bio's internal QC testing used:</p> <p>Predicted MW: 78-82 kd</p> <p>Western blotting: 1:500-1:2000</p> <p>Immunohistochemistry: 1:50-1:200</p> <p>Immunofluorescence: 1:100-1:500</p>

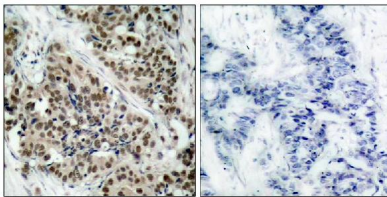
Anti-Phospho-FKHR (Ser256) FOXO1 Antibody (P00073) Images



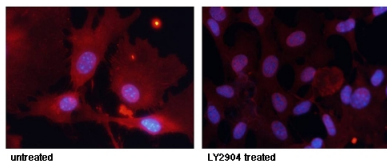
Western blot analysis of extracts from 293 cells untreated or treated with serum using FKHR(Phospho-Ser256) antibody P00073.



Immunofluorescence staining of methanol-fixed MCF7 cells using FKHR(Phospho-Ser256) antibody P00073.



Immunohistochemical analysis of paraffin-embedded human breast carcinoma tissue using FKHR (Phospho-Ser256) antibody P00073 (left) or the same antibody preincubated with blocking peptide (right).



Immunofluorescence staining of methanol-fixed MEF cells untreated or treated with LY2904 using FKHR (Phospho-Ser256) antibody P00073.

2 Publications Citing This Product

1. PubMed ID: 10.1016/j.ejphar.2020.173136, Prolonged overnutrition with fructose or fat induces metabolic derangements in rats by disrupting the crosstalk between the hypothalamus and periphery: Possible amelioration with fenofibrate
2. PubMed ID: 24862853, Dong P, Mai Y, Zhang Z, Mi L, Wu G, Chu G, Yang G, Sun S. Acta Biochim Biophys Sin (Shanghai). 2014 Jul;46(7):565-71. Doi: 10.1093/Abbs/Gmu043. Epub 2014 May 26. Mir-15A/B Promote Adipogenesis In Porcine Pre-Adipocyte Via Repressing Foxo1.

Visit bosterbio.com/anti-phospho-fkhr-ser256-antibody-p00073-boster.html to see all 2 publications.

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