EGR1 Polyclonal antibody

Catalog Number:55117-1-AP

Featured Product   **23 Publications**

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Basic Information

Catalog Number:
55117-1-AP

Size:
150ul , Concentration: 450 ug/ml by Nanodrop and 293 ug/ml by Bradford method using BSA as the standard;

Source:
Rabbit

Isotype:
IgG

GenBank Accession Number:
NM_001964

GeneID (NCBI):
1958

UNIPROT ID:
P18146

Full Name:
early growth response 1

Calculated MW:
58 kDa

Observed MW:
70-80 kDa

Purification Method:
Antigen affinity purification

Recommended Dilutions:
WB: 1:500-1:1000
IHC: 1:50-1:500
IF/ICC: 1:200-1:800
FC (Intra): 0.40 ug per 10^6 cells in a 100 μl suspension

Applications

Tested Applications:
WB, IHC, IF/ICC, FC (Intra), ELISA

Cited Applications:
WB, IHC, IF

Species Specificity:
human, mouse

Cited Species:
human, mouse

Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0

Positive Controls:

WB : A549 cells, MCF-7 cells, PC-3 cells

IHC : human placenta tissue, human cervical cancer tissue

IF/ICC : MCF-7 cells,

FC (Intra) : MCF-7 cells,

Background Information

Early growth response 1 (EGR1) is a member of EGR family which are transcriptional factors that contain three repetitive zinc finger DNA binding domains which bind to EGR response elements (ER) to regulate target gene expression. The expression of EGR family members is induced by growth factors, with EGR1 expression being induced by NGF. Increased EGR1 expression activates transcription of other signaling molecules, including CDK5 and tyrosine hydroxylase, and exerts long term effects on neural cell growth and differentiation. Egr-1 binds to the DNA sequence 5'-CGCCCCCGC-3' (Egr-site), thereby activating transcription of target genes whose products are required for mitogenesis and differentiation. Western blotting of nuclear and cytoplasmic fractions of CNS tissue verified the cytoplasmic Egr1 as 110-kDa dimer or after denaturation as a 57-kDa version, which is reflecting its theoretical molecular weight of 57 kDa. In the nucleus Egr1 is found as 75-kDa homo- or heterodimer and as 35-kDa variant under strong denaturation.

Notable Publications

Author	Pubmed ID	Journal	Application
Shuyue Sheng	34608568	In Vitro Cell Dev Biol Anim	WB
Erin N Scully	31844776	Heliyon	IHC
Yan-Lin Yang	30462533	Am J Physiol Cell Physiol	WB

Storage

Storage:
Store at -20℃. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol, pH7.3
Aliquoting is unnecessary for -20°C storage

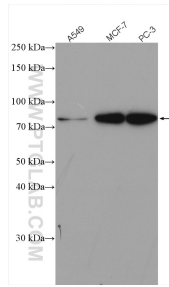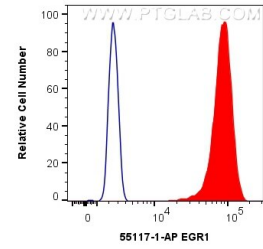***** 20ul sizes contain 0.1% BSA**
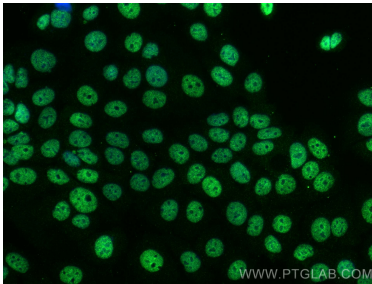
Selected Validation Data

Various lysates were subjected to SDS PAGE followed by western blot with 55117-1-AP (EGR1 antibody) at dilution of 1:800 incubated at room temperature for 1.5 hours.
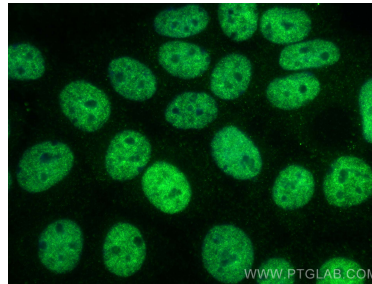

Immunohistochemical analysis of paraffin-embedded human placenta tissue slide using 55117-1-AP (EGR1 antibody) at dilution of 1:200 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).

1X10^6 MCF-7 cells were intracellularly stained with 0.4 ug Anti-Human EGR1 (55117-1-AP) and CoraLite®488-Conjugated Goat Anti-Rabbit IgG(H+L) at dilution 1:1000 (red), or 0.4 ug Control Antibody. Cells were fixed and permeabilized with Transcription Factor Staining Buffer Kit (PF00011).

Immunofluorescent analysis of (4% PFA) fixed MCF-7 cells using EGR1 antibody (55117-1-AP) at dilution of 1:400 and CoraLite®488-Conjugated Goat Anti-Rabbit IgG(H+L).

Immunofluorescent analysis of (4% PFA) fixed MCF-7 cells using EGR1 antibody (55117-1-AP) at dilution of 1:400 and CoraLite®488-Conjugated Goat Anti-Rabbit IgG(H+L).