For Research Use Only

ELF1 Polyclonal antibody

Catalog Number:22565-1-AP 9 Publications

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Basic Information

Catalog Number:
22565-1-AP

Size:
150ul , Concentration: 900 ug/ml by Nanodrop and 320 ug/ml by Bradford method using BSA as the standard;

Source:
Rabbit

Isotype:
IgG

Immunogen Catalog Number:
AG14689

GenBank Accession Number:
BC030507

GeneID (NCBI):
1997

UNIPROT ID:
P32519

Full Name:
E74-like factor 1 (ets domain transcription factor)

Calculated MW:
619 aa, 67 kDa

Observed MW:
97 kDa

Purification Method:
Antigen affinity purification

Recommended Dilutions:
WB 1:1000-1:8000
IHC 1:100-1:1200
IF/ICC 1:50-1:500

Applications

Tested Applications:
WB, IHC, IF/ICC, ELISA

Cited Applications:
WB, IHC, IF, chIP, EMSA

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 : PC-3 cells, HeLa cells, A431 cells, Jurkat cells, HL-60 cells, mouse thymus tissue

IHC : human colon cancer tissue, human pancreas cancer tissue, human tonsillitis tissue

IF/ICC : PC-3 cells,

Background Information

ELF1, also named as ETS-related transcription factor Elf-1, is originally cloned from a human T-cell cDNA library by hybridization with a probe encoding the DNA binding domain (ETS domain) of the human Ets-1 cDNA. Based on its preferential expression in embryonic lymphoid organs (thymus and spleen), a wide variety of epithelial cells and fetal liver as well as in adult haematopoietic tissues, including thymus, spleen and bone marrow, Elf-1 emerged as a potential key regulator of haematopoietic gene expression. Consistent with this notion, Elf-1 has been shown to be a direct upstream regulator of genes important for haematopoiesis such as Scl, Fli-1, Lyl-1, Runx1 and Lmo2 . Elf-1 has also been shown to be important for blood vessel development, a process that is closely linked to early haematopoiesis during embryonic development. Elf-1 has been reported to take part in the transcriptional control of major regulators of blood vessel development such as Tie1, Tie2, angiopoietin-2, the vascular endothelial growth factor receptor 1 (VEGFR1), the endothelial nitric-oxide synthase (eNOS) and endoglin . Functional activity of Ets proteins is modulated at multiple levels. It is known that ELF-1 appears in the cytoplasm as a 80 KDa protein that is O -glycosylated and phosphorylated in order to be translocated into the nucleus where it can be detected as a 98 KDa protein. After dephosphorylation, the protein is degraded through the proteasome pathway. The inactive form of Elf-1 is an 80-kDa protein that lacks DNA-binding activity and is confined to the cytoplasm of the cell. Phosphorylation and O-linked glycosylation increase the molecular weight of Elf-1 to 98 kDa, the active form; 98 kDa Elf-1 binds to the promoter of the gene that codes for CD3ζ inducing its transcription.

Notable Publications

Author	Pubmed ID	Journal	Application
Joshua E Burda	35614216	Nature	IHC
Kaile Zhang	32478052	Front Bioeng Biotechnol	WB
Yuki Hitomi	34864633	J Autoimmun	EMSA

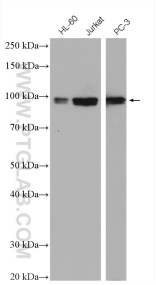
Storage

Storage:
Store at -20°C. 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

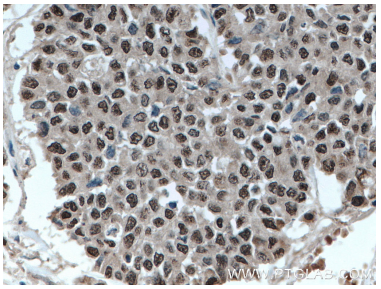
***** 20ul sizes contain 0.1% BSA**

For technical support and original validation data for this product please contact:
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)
E: proteintech@ptglab.com
W: ptglab.com

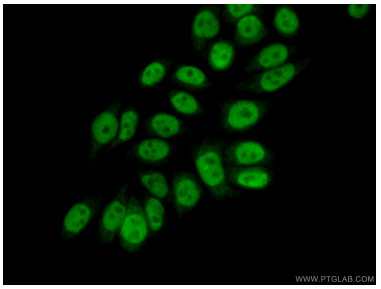
Selected Validation Data



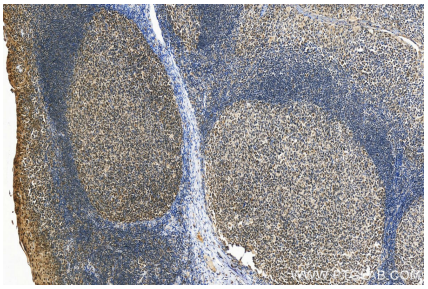
Various lysates were subjected to SDS PAGE followed by western blot with 22565-1-AP (ELF1 antibody) at dilution of 1:4000 incubated at room temperature for 1.5 hours.



Immunohistochemical analysis of paraffin-embedded human colon cancer tissue slide using 22565-1-AP (ELF1 antibody) at dilution of 1:200 (under 40x lens. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of (10% Formaldehyde) fixed PC-3 cells using 22565-1-AP (ELF1 antibody) at dilution of 1:50 and Alexa Fluor 488-conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).



Immunohistochemical analysis of paraffin-embedded human tonsillitis tissue slide using 22565-1-AP (ELF1 antibody) at dilution of 1:800 (under 20x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).