ALPHA DIAGNOSTIC INTERNATIONAL

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Product Specification Sheet

Effector cell Protease Receptor-1 (EPR-1) Antibodies

Cat. EPR11-S	Rabbit Anti-Human EPR-1 antisera	**SIZE**: 100 ul
Cat. EPR11-A	Rabbit Anti-Human EPR-1 IgG (aff pure)	**SIZE**: 100 ug
Cat. EPR11-P	Human EPR-1 Control peptide	**SIZE**: 100 ug

The inhibitors of apoptosis proteins (IAPs) are a widely expressed gene family of apoptotic inhibitors. Recently, a new human gene encoding a structurally and unique IAP designated **Survivin** has been identified. Survivin (human 142 aa, ~16.5 kDa) is highly expressed in less-differentiated embryonic cells or rapidly dividing tumor cell but not in fully differentiated adult tissues. Interestingly, Survivin coding strand has significant sequence homology with **Effector cell Protease Receptor-1 (EPR-1**) suggesting a potential for functional interaction between these two proteins.

Factor Xa plays a critical role in the coagulation process by catalyzing the activation of prothrombin to thrombin. It acts on leukocytes, endothelium and smooth muscle cells triggering complex pathways of intracellular signaling. Factor Xa binds to EPR-1. The full length **EPR-1** predicts a protein of 337 aa (~65 kDa de-glycosylated form). EPR-1 is expressed in vascular endothelial cells and smooth muscle cells. Survivin and EPR-1 are encoded by structurally and topographically distinct messages from potentially originating from gene cluster at chromosome 17q25. Overexpression of EPR-1 increased apoptosis and inhibited growth of transformed cells. The importance of the Survivin-EPR-1 interaction remains to be elucidated.

Source of Antigen and Antibodies

Antigen	20-aa peptide from **human EPR** (1); **Designation (EPR11-P, control peptide**). Epitope location ~ C-terminus
Ab Host/type	Rabbit, Polyclonal, Unpurified antiserum (cat # EPR11-S) and aff pure IgG (cat # EPR11-A) purified over the antigen column
2ab	Cat # 20320, goat anti-rabbit IgG-HRP (AP, biotin, FITC conjugates also available
-ve control	# 20009-1, Rabbit (non-immune) IgG, purified, suitable for ELISA, Western, IHC as –ve control

Form & Storage of Antibodies/Peptide Control

Antiserum (unpurified)
100ul solution lyophilized powder
Supplied in Buffer: 0.05% azide
Reconstitute powder in 100 ul PBS

Affinity pure IgG
100 ug/100ul solution lyophilized powder
Supplied in **Buffer**: PBS+0.1% BSA
Reconstitute powder in PBS at 1mg/ml

Control/blocking peptide
100 ug/100 ul solution lyophilized powder
Supplied in Buffer: PBS pH 7.5,
Reconstitute powder in PBS at 1 mg/ml.

Storage

Short-term: unopened, undiluted liquid vials at 20°C and powder at 4°C or -20°C..

Long-term: at –20°C or below in suitable aliquots after reconstitution. Do not freeze and thaw and store working, diluted solutions.

Stability: 6-12 months at –20°C or below.
Shipping: 4°C for solutions and room temp for powder

Recommended Usage

Western Blotting (1:1K-5K for neat serum and 1-10 ug/ml for affinity pure using Chemiluminescence technique). EPR-1 is ~62 kDa protein in detergent solubilized extracts of Jurkat and monocytic THP-1 cells.

ELISA (1:10K-1:100K; using 50-100 ng of control peptide/well).

Histochemistry: not tested. We recommend the use of affinity purified antibody at 2-20 ug/m.

Specificity & Cross-reactivity

Human EPR11-P peptide has no significant sequence homology with Survivin. Antibody cross-reactivity with EPR-1 from other species is not known. Control peptide, because of its low mol. Wt (<3 kDa), is not suitable for Western. It should be used for ELISA or antibody blocking experiments (use 5-10 ug control peptide per 1 ug of aff pure IgG or 1 ul antiserum) to confirm antibody specificity (detailed protocol is available at the web site).

General References: **(1)** Ambrosini G et al (1997) Nature Med. 3, 917-921; Altieri DC et al (1994) J Biol. Chem. 269, 3139-3142; Altieri DC et al (1994) Biochem. 33, 13848-13855; Adida C et al (1998) Am. J Pathol. 152, 43-49; Lu C-D et al (1998) Cancer Res. 58, 1808-1812; Li F et al (1998) Nature 396, 580-584.

*This product is for *in vitro* research use only.

Related material available from ADI

Anti-Parkin, Survivin, Presenilins 1, 2; Synuclein alpha and beta, APP, Amyloids, ERAB, dopamine transporter, and Dopamine receptors, Serotonin transporter, etc.

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