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20-1020: Polyclonal antibody to BFAR (BAR)

Clonality :	Polyclonal
Application :	IP,IHC,WB
Reactivity :	Human
Gene :	BFAR
Gene ID :	51283
Uniprot ID :	Q9NZS9
Format :	Sera
Alternative Name :	BFAR,BAR,RNF47
Isotype :	Rabbit IgG
Immunogen Information :	A synthetic peptide of BFAR (BAR) protein (amino acids 3-21 EPQKSYVNTMDLERDEPLK) was used as the immunogen for this antibody

Description

BAR (bifunctional apoptosis regulator) is a multidomain protein that was originally identified as an inhibitor of Bax-induced apoptosis. BAR is in anchored in intracellular membranes and is thought to be a scaffold protein that may bridge components of both extrinsic and intrinsic apoptosis pathways through its antiapoptotic domains: 1. BAR contains a DED (death effector domain)-like protein interaction domain that suppresses death receptor apoptosis signaling pathways.BAR is highly expressed in the brain and expression patterns as well as functional data with neuronal cell lines suggest that BAR is involved in regulating neuronal survival. Additionally, subcellular localization studies indicate that BAR predominantly localizes to the endoplasmic reticulum (ER), irrespective of cell type. Bcl-2 family proteins also localize to the ER. There is important crosstalk between the ER and mitochondria in the execution of cell death. It is thought that both BAR and Bcl-2 proteins play a role in regulating cell death/apoptosis induced by ER stress. Dysregulation of ER homeostasis and apoptosis is thought to be involved in the pathogenesis of some human neuronal diseases, including Alzheimers, Parkinsons, polyglutamine diseases,nueronal storage diseases, prion dieases, as well as acute neurodegeration from brain trauma. Since BAR is normally widely expressed in the brain, it may have a cytoprotective function in helping neurons to survive for the entire lifetime of the organism by playing a central role in inhibiting ER initiated apoptosis.

Product Info

Amount :	50 µl
Content :	50 µl sera
Storage condition :	Store the antibody at 4°C, stable for 6 months. For long-term storage, store at -20°C. Avoid repeated freeze and thaw cycles.

Application Note

WB: 1:1000-1:2000, IHC (paraffin): 1:1000-1:5000, IHC (frozen): Users should optimize, IP: 1:50-1:200

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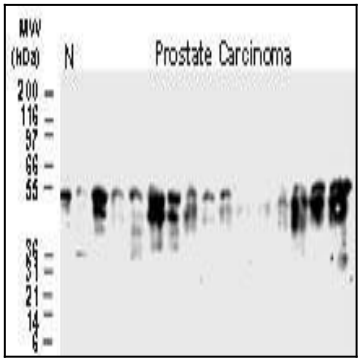

Fig:1 Western blot analysis of BAR (20-1020) in normal prostate and prostate carcinoma tissue lysates. 25 ug protein was loaded per lane. Tissue lysates from 15 different prostate carcinoma patients show variable expression of BAR with respect to banding patterns and amount of BAR expression. Major BAR bands typically migrate as a single band or as a doublet. These bands are typically observed at ~50-54 kDa. This is higher than the predicted molecular weight from the 450 amino acid BAR sequence, and may represent phosphorylation or other post-translational modifications. N = tissue lysate from normal prostate.

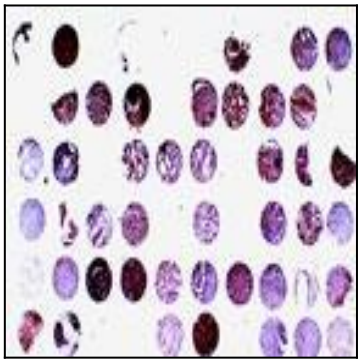

Fig:2 Formalin-fixed, paraffin-embedded human prostate carcinoma tissue array stained for BAR expression using 20-1020 at 1:2000. Hematoxylin-eosin counterstain. Variable BAR expression is seen between patient samples.

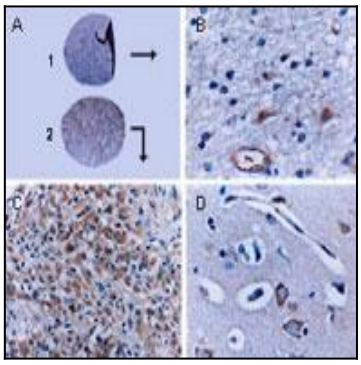

Fig:3 Formalin-fixed, paraffin-embedded tissue sections stained for BAR expression using 20-1020 at 1:2000. A. Two cores from a human gliobastoma tissue microarray: 1 = fibrillary astrocytoma (grade I), and 2 = anaplastic glioma (grade III). B. Higher magnification from the fibrillary astrocytoma (shown in A). C. Higher magnification from the anaplastic glioma (shown in A). D. Normal human brain striatum with positive medium spiny neurons, the major neuronal cell type of the striatum. Hematoxylin-eosin counterstain.