CELL APPLICATIONS, INC.

IGF-1R Polyclonal Antibody
Cat. No. CC1031

Applications:	WB, IP, IHC
Detected MW:	97 kDa
Species & Reactivity:	human, mouse, rat
Isotype:	Rabbit IgG

BACKGROUND

The type 1 insulin-like growth factor receptor (IGF-1R) is a transmembrane tyrosine kinase. The mature IGF-1R consists of alpha and beta chains which are processed from a common precursor pro-IGF-1R. It is widely expressed among many cell types in fetal and postnatal tissues.[1] Upon binding to its secreted growth factor ligands, IGF-1 and IGF-2, the receptors are activated and elicit a repertoire of cellular responses including proliferation and protection of cells from apoptosis.[2] As a result, signaling through IGF-1R is the principal pathway responsible for somatic growth in fetal mammals, whereas somatic growth in postnatal animals is achieved through the synergistic interaction of growth hormone and the IGFs.[3] Forced overexpression of IGF-1R results in the malignant transformation of cultured cells. Conversely, downregulation of IGF-1R levels can reverse the transformed phenotype of tumor cells, and may render them sensitive to apoptosis *in vivo*. Elevated levels of IGF-IR are observed in a variety of human tumor types, whereas epidemiological studies implicate the IGF-1 axis as a predisposing factor in the pathogenesis of human breast and prostate cancer. IGF-1R has thus emerged as a therapeutic target for the development of antitumor agents.[4]

References:
1. De Meyts, P. & Whittaker, J.: Nat Rev Drug Discov. 1:769-83, 2002.
2. Chitnis, M.M. et al: Clin Cancer Res. 14:6364-70, 2008.
3. Sandow, J.: Arch Physiol Biochem. 115:72-85, 2009.
4. Kim, S.Y. et al: Bull Cancer, 96:E52-60, 2009.

TECHNICAL INFORMATION

Source:
Affinity purified anti-IGF-1R antibody is a rabbit polyclonal antibody raised against an epitope near the human IGF-1 R carboxyl terminal sequence.

Specificity and Sensitivity:
This antibody detects endogenous human, mouse and rat IGF-1 receptors.

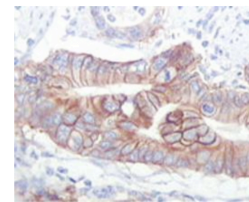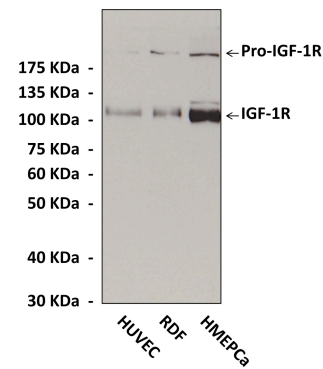**Storage Buffer**: PBS and 30% glycerol

Storage:
Store at -20°C for at least one year. Store at 4°C for frequent use. Avoid repeated freeze-thaw cycles.

APPLICATIONS

Application:	*Dilution:
WB	1:1000
IP	n/d
IHC (Paraffin)	n/d
ICC	n/d
FACS	n/d
*Optimal dilutions must be determined by end user.	

QUALITY CONTROL DATA

Top: Various cell lysates were subjected to Western Blot analysis using Anti-IGF-1R rabbit polyclonal Antibody. **Bottom:** Immunohistochemical analysis of paraffin-embedded human gastric adenocarcinoma tissues using IGF-1R Antibody.