Datasheet for ABIN5518908

anti-EGF antibody (AA 974-1026)

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Overview

Quantity:	100 µg
Target:	EGF
Binding Specificity:	AA 974-1026
Reactivity:	Rat
Host:	Rabbit
Clonality:	Polyclonal
Application:	Western Blotting (WB), ELISA, Immunohistochemistry (Paraffin-embedded Sections) (IHC (p))

Product Details

Purpose:	Rabbit IgG polyclonal antibody for Pro-epidermal growth factor(Egf) detection. Tested with WB, IHC-P, ELISA in Rat.
Immunogen:	E. coli-derived rat EGF recombinant protein (Position: N974-R1026). Rat EGF shares 69.8% and 77.4% amino acid (aa) sequence identity with human and mouse EGF, respectively.
Isotype:	IgG
Cross-Reactivity (Details):	No cross reactivity with other proteins.
Characteristics:	Rabbit IgG polyclonal antibody for Pro-epidermal growth factor(Egf) detection. Tested with WB, IHC-P, ELISA in Rat. Gene Name: epidermal growth factor Protein Name: Pro-epidermal growth factor
Purification:	Immunogen affinity purified.

Target Details

Target:	EGF
Alternative Name:	Egf (EGF Products)
Background:	EGF is known as epidermal growth factor. This gene encodes a member of the epidermal growth factor superfamily. The encoded preproprotein is proteolytically processed to generate the 53-amino acid epidermal growth factor peptide. This protein acts a potent mitogenic factor that plays an important role in the growth, proliferation and differentiation of numerous cell types. Additionally, it acts by binding with high affinity to the cell surface receptor, epidermal growth factor receptor. Defects in this gene are the cause of hypomagnesemia type 4. Dysregulation of this gene has been associated with the growth and progression of certain cancers. Alternative splicing results in multiple transcript variants, at least one of which encodes a preproprotein that is proteolytically processed. Synonyms: Pro-epidermal growth factor, EGF, Epidermal growth factor, Egf
Gene ID:	25313
UniProt:	P07522
Pathways:	NF-kappaB Signaling, RTK Signaling, Fc-epsilon Receptor Signaling Pathway, EGFR Signaling Pathway, Neurotrophin Signaling Pathway, Regulation of Carbohydrate Metabolic Process, Hepatitis C, Protein targeting to Nucleus, Interaction of EGFR with phospholipase C-gamma, Thromboxane A2 Receptor Signaling, EGFR Downregulation

Application Details

Application Notes:	WB: Concentration: 0.1-0.5 µg/mL, Tested Species: Rat IHC-P: Concentration: 0.5-1 µg/mL, Tested Species: Rat, Epitope Retrieval by Heat: Boiling the paraffin sections in 10 mM citrate buffer, pH 6.0, for 20 mins is required for the staining of formalin/paraffin sections. ELISA: Concentration: 0.1-0.5 µg/mL, Tested Species: Rat Notes: Tested Species: Species with positive results. Other applications have not been tested. Optimal dilutions should be determined by end users.
Comment:	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (ABIN921124) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P).
Restrictions:	For Research Use only

Handling

Format:	Lyophilized
Reconstitution:	Add 0.2 mL of distilled water will yield a concentration of 500 µg/mL.
Concentration:	500 µg/mL
Buffer:	Each vial contains 5 mg BSA, 0.9 mg NaCl, 0.2 mg Na2HPO4, 0.05 mg Sodium azide.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	4 °C,-20 °C
Storage Comment:	At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20 °C for a longer time. Avoid repeated freezing and thawing.

Publications

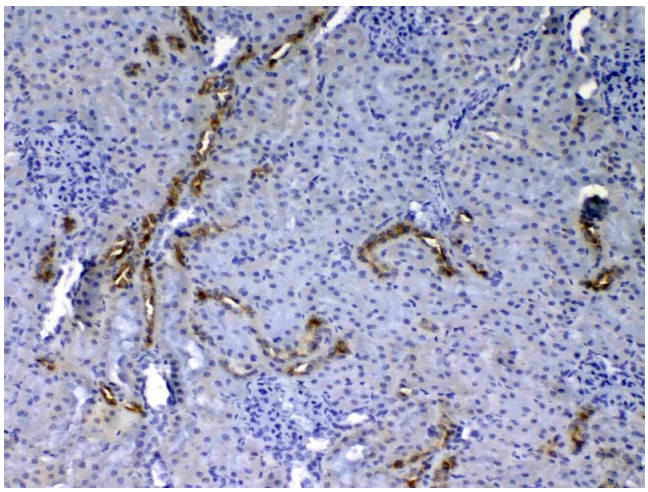
Product cited in:	Ozcan, Canpolat, Bulmus, Ulker, Tektemur, Tekin, Ozcan, Serhatlioglu, Kacar, Ayar, Kelestimur: "Agomelatine pretreatment prevents development of hyperglycemia and hypoinsulinemia in streptozotocin-induced diabetes in mice." in: **Fundamental & clinical pharmacology**, Vol. 33, Issue 2, pp. 170-180, (2019) (PubMed). Pei, Yao, Jiang, Qiu, Wang, Yang, Gao, Wang, Yang, Liu, Liu, Jia, Tao, Wei, Sun: "Inorganic arsenic induces pyroptosis and pancreatic β cells dysfunction through stimulating the IRE1α/TNF-α pathway and protective effect of taurine." in: **Food and chemical toxicology : an international journal published for the British Industrial Biological Research Association**, Vol. 125, pp. 392-402, (2019) (PubMed). Liu, Wang, Ma, Wen: "Hydroxytyrosol Improves Obesity and Insulin Resistance by Modulating Gut Microbiota in High-Fat Diet-Induced Obese Mice." in: **Frontiers in microbiology**, Vol. 10, pp. 390, (2019) (PubMed). Chin, Ng, Ng: "Moringa oleifera standardised aqueous leaf extract-loaded hydrocolloid film dressing: in vivo dermal safety and wound healing evaluation in STZ/HFD diabetic rat model." in: **Drug delivery and translational research**, (2018) (PubMed). Qasem, Noordin, Arya, Alsalahi, Jayash: "Evaluation of the glycemic effect of Ceratonia siliqua

pods (Carob) on a streptozotocin-nicotinamide induced diabetic rat model." in: **PeerJ**, Vol. 6, pp. e4788, (2018) (PubMed).

Images

Western Blotting

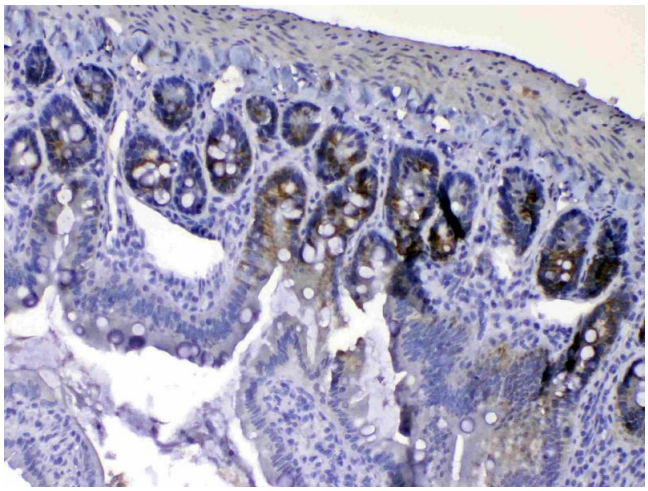
Image 1. Western blot analysis of EGF using anti-EGF antibody . Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. Lane 1: recombinant rat EGF protein 1ng. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-EGF antigen affinity purified polyclonal antibody (Catalog #) at 0.5 µg/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for EGF at approximately 6KD. The expected band size for EGF is at 6KD.



Immunohistochemistry

Image 2. IHC analysis of EGF using anti-EGF antibody . EGF was detected in paraffin-embedded section of rat kidney tissue . Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1µg/ml rabbit anti-EGF Antibody overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using

Strepavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.



Immunohistochemistry

Image 3. IHC analysis of EGF using anti-EGF antibody . EGF was detected in paraffin-embedded section of rat small intestine tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1µg/ml rabbit anti-EGF Antibody overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.