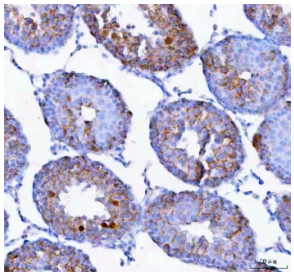
EPGN Antibody / EGFR Ligand Epigen Antibody (R32988)

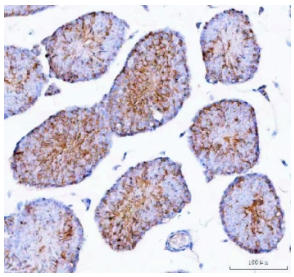
Catalog No.	Formulation	Size
R32988	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

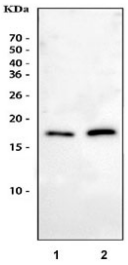
Availability	1-3 business days
Species Reactivity	Mouse, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	Q924X1
Localization	Cell membrane
Applications	Western Blot: 0.5-1ug/ml Immunohistochemistry (FFPE): 2-5ug/ml ELISA (recombinant mouse protein): 0.1-0.5ug/ml (BSA-free format available)
Limitations	This EPGN Antibody / EGFR Ligand Epigen Antibody is available for research use only.



EPGN Antibody Rat Testis IHC. Epigen was detected in a formalin-fixed, paraffin-embedded section of rat testis tissue. Heat-induced epitope retrieval was performed by boiling the section in EDTA buffer, pH 8.0, for 20 minutes followed by cooling before staining. Brown chromogenic signal is visible within the seminiferous tubules, with prominent cytoplasmic staining in populations of developing germ cells and comparatively limited interstitial staining. This EPGN Antibody, also described as an EGFR Ligand Epigen Antibody, supports studies of Epigen distribution and growth factor signaling in rat reproductive tissue.



EPGN Antibody Mouse Testis IHC. Epigen was detected in a formalin-fixed, paraffin-embedded section of mouse testis tissue. Heat-induced epitope retrieval was performed by boiling the section in EDTA buffer, pH 8.0, for 20 minutes followed by cooling before staining. Brown chromogenic signal is broadly distributed throughout the seminiferous tubules, demonstrating cytoplasmic Epigen expression among developing germ cell populations, with limited staining in the surrounding interstitial tissue. This EPGN Antibody, also described as an EGFR Ligand Epigen Antibody, supports studies of epithelial growth factor signaling and Epigen distribution in mouse reproductive tissue.



EPGN Antibody Rat and Mouse Brain WB. Western blot analysis was performed using rat brain tissue lysate in lane 1 and mouse brain tissue lysate in lane 2. The membrane was incubated with Epigen antibody at 0.5 ug/ml. A distinct band was detected at approximately 17 kDa in both samples, matching the predicted molecular weight of the Epigen precursor protein. These results demonstrate recognition of endogenous Epigen in rat and mouse neural tissues. This EPGN Antibody, also described as an EGFR Ligand Epigen Antibody, supports cross-species studies of Epigen expression and growth factor signaling in the brain.

Description

EPGN Antibody recognizes Epigen, an epidermal growth factor family protein also known as epithelial mitogen. Epigen is encoded by the EPGN gene and functions as a ligand for the epidermal growth factor receptor. It is synthesized as a membrane-associated precursor containing an extracellular EGF-like domain, a transmembrane region and a short intracellular segment. Proteolytic processing can release the extracellular ligand, allowing Epigen to signal to the producing cell or neighboring cells. Binding of Epigen to EGFR promotes receptor activation and can stimulate the growth of responsive epithelial cell populations.

Although Epigen interacts with EGFR with relatively low affinity, it can generate potent and sustained mitogenic signaling. Ligand binding promotes EGFR dimerization and receptor phosphorylation, followed by recruitment of intracellular signaling proteins. Downstream pathways may include the RAS-MAPK and PI3K-AKT cascades, which regulate cell-cycle progression, survival, differentiation and tissue growth. An EPGN Antibody can help researchers examine how Epigen abundance relates to EGFR activation and downstream signaling under different biological or experimental conditions.

Epigen expression is regulated according to tissue type, developmental stage and local signaling conditions. Studies of EPGN biology have associated the ligand with epithelial development, tissue remodeling, regenerative responses and the maintenance of selected proliferative cell populations. Its biological effects can be influenced by the availability of EGFR, proteolytic processing of the membrane precursor and the presence of other EGFR family ligands. Comparing Epigen with EGF, amphiregulin, epiregulin or transforming growth factor alpha may help reveal how individual ligands generate distinct receptor activation patterns and cellular responses.

EPGN Antibody products can support research into epithelial growth, receptor tyrosine kinase signaling and cancer-associated metabolic or proliferative pathways. This antibody is intended for detecting mouse and rat Epigen in validated applications, including western blot and immunohistochemistry. Analysis of brain, testis or other responsive tissues may help define tissue-specific EPGN protein distribution, while studies in disease models can assess changes associated with altered EGFR pathway activity. NSJ Bioreagents supplies this EPGN Antibody, also described as an EGFR Ligand Epigen Antibody, for investigating Epigen expression, epithelial mitogenic signaling and related growth-regulatory mechanisms.

For additional Epigen research products, including an antibody validated with human samples, visit our Epigen Antibody page covering epithelial mitogen expression and EGFR signaling.

Application Notes

Optimal dilution of the EPGN Antibody / EGFR Ligand Epigen Antibody should be determined by the researcher.

Immunogen

A recombinant mouse protein corresponding to amino acids A19-K109 was used as the immunogen for the Epigen / EPGN antibody.

Storage

After reconstitution, the Epigen / EPGN antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

Alternate Names

Epigen Antibody, EGFR Ligand Epigen Antibody, Epithelial Mitogen Antibody, EPG Antibody, Proepigen Antibody, Epigen Precursor Antibody, EGF Family Ligand Epigen Antibody

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