Anti-HB-EGF (human) antibody, monoclonal (4G10), biotinylated

71-503　　50 u g

Background: Heparin-binding epidermal growth factor-like growth factor (HB-EGF) is synthesized as a membrane-anchored precursor that is proteolytically cleaved to release the soluble mature growth factor, HB-EGF (1, 2). The former functions as juxtacrine and the latter as paracrine growth factor. Soluble HB-EGF shows several forms in western blotting with apparent molecular weights 19~27 kDa due to heterogeneous O-glycosylation and N-terminal truncation. HB-EGF activates EGFR and ErbB4 and promotes the development of many tissues. In human ProHB-EGF is the cellular receptor for diphtheria toxin (3). Non-toxic mutant of diphtheria toxin, CRM197, inhibit HB-EGF function, which is elevated in most ovarian cancer, is being tested as an anticancer drug (4). The hybridoma clone 4G10 was established and characterized by the members of Prof. E. Mekada of Osaka University, who is a leading scientist in this field (3, 4).

Applications

1)　Western blotting (0.2~1 ug /ml)　2) Immunoprecipitation.　3)Indirect immuno-fluorescence staining

Properties of the product

Antigen: Recombinant human HB-EGF ectodomain expressed in SF21 cell.

Antibody: Produced in serum-free medium and purified by combination of chromatography

Isotype: IgG1　**Epitope**: EGF domain　**Reactivity**: React with human but not with mouse

Form: Biotinylated IgG (biotin/IgG = 7.5) 1 mg/ml in PBS, 50% glycerol, filter-sterilized, azide-free

Storage: -20℃ (long period; -80℃)

Reference:

1. Higashiyama S. et al. Science 251: 936 (1991)
2. Prenzel N. et al. Nature 402: 884 (1999)
3. Iwamoto R. et al. EMBO J 13: 2322 (1994)
4. Miyamoto S. et al. Cancer Res. 64:5720 (2004)

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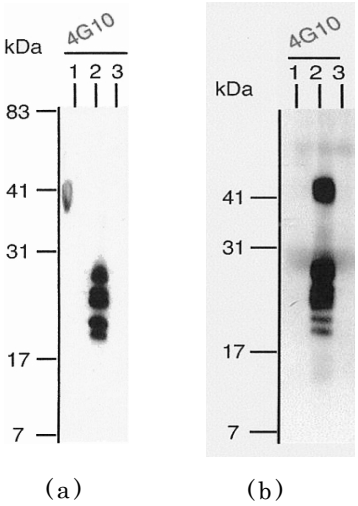
Figure. Identification of human HB-EGF by using anti-HB-EGF (clone 4G10)

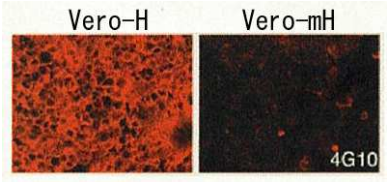
(a) Western blotting. Samples 1. Vero cell extract. 2. Vero cells carrrying human HB-EGF expression vector. 3. Vero cells carrying mouse HB-EGF expression vector

(b) Immunoprecipitation. Samples are the same as (a) except that the cell surface was biotinylated

(c) Immuno-cytochemistry: Samples; (Vero-H) Vero cells carrying human HG-EGF expression vector. (Vero-mH) Vero cells carrying mouse HB-EGF expression vector. Cells treated with antibody 4G10, fixed with 4% PFA and reacted with Cys3 conjugated 2nd antibody..



(a) (b)



(c)

Related product:

 # 71-501 Anti-HB-EGF (human) antibody,, monoclonal (4G10)

 # 01-515 Diphtheria toxin mutant CRM197

 # 01-517 Diphtheria toxin

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