



## Anti-HB-EGF (human) biotinylated

### 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).

Product type	Primary antibodies
Host	
Source	Supernatant
Form	Liquid
	Biotinylated IgG (biotin/IgG = 7.5) 1 mg/ml in PBS, 50% glycerol, filter-sterilized, azide-free
Volume	50µg
Concentration	1 mg/ml
Specificity	HB-EGF (4G10)
Antigen	Recombinant human HB-EGF ectodomain expressed in SF21 cell.
Clone	4G10
Isotype	IgG1 (Mouse)

Application notes WB, IP, IF

### Recommended dilutions

Western blotting : 0.2~1 µg/ml

Immunoprecipitation: 2 µg/ml

Indirect immuno-fluorescence staining: 5~10 µg/ml

Optimal dilutions/concentrations should be determined by the end user.

Cross reactivity Human (Not with mouse)

Storage -20°C (long period; -80°C)

References 1) Higashiyama S. et al. Science 251: 936 (1991)

2) Prenzel N. et al. Nature 402: 884 (1999)

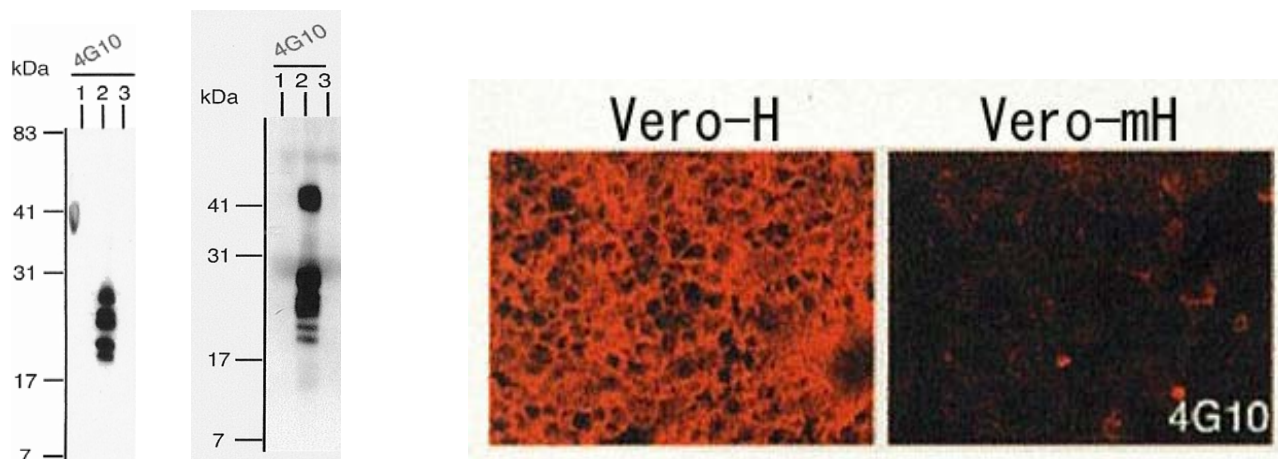
3) Iwamoto R. et al. EMBO J 13: 2322 (1994)

4) Miyamoto S. et al. Cancer Res. 64:5720 (2004)



RELATED PRODUCT

BAM-71-501EX Anti-HB-EGF (4G10)  
BAM-01-515EX Diphtheria toxin mutant CRM197  
BAM-01-517EX Diphtheria toxin



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

(a) Western blotting. Samples 1. Vero cell extract. 2. Vero cells carrying 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.

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