

## PRODUCT SPECIFICATION

### Anti-Exendin-4

#### Mouse monoclonal antibody, biotinylated

Subclass: IgG1/k

PRODUCT NO.

**ABS 012-35 B**

PRESENTATION

Preparation: Biotinylated  
 Content: 50 µL, 1 mg/mL  
 Solvent: 0.01 M phosphate buffer, pH 7.4, with 0.14 M NaCl and 15 mM sodium azide  
 Storage: In the dark at 4-8°C

ANTIGEN

Exendin-4 is a 39 amino acid peptide found in venom from the Gila monster *Heloderma suspectum* (1). It is a member of the glucagon-secretin family of peptide hormones and neuropeptides. Exendin-4 is a potent agonist of the GLP-1 receptor and hence a potent stimulator of insulin secretion (2).

IMMUNOGEN

Synthetic exendin-4 adsorbed onto aluminum hydroxide gel

SPECIFICITY

Specific for exendin-4. No cross-reactivity with GLP-1, GLP-2 (human) or glucagon coated on ELISA wells.

EPI TOPE SPECIFICITY

The epitope is in the 9-39 region of the peptide, and the antibody cross-reacts strongly with exendin (9-39)amide.

REACTIVITY

ABS 012-35 binds to exendin-4 when coated on ELISA wells and reacts specifically with exendin-4 in solution giving a  $K_a$  of  $1.1 \times 10^9$  in an inhibition ELISA. The binding between ABS 012-35 and exendin-4 is disrupted by 4.5 M  $MgCl_2$ .

ABS 012-35 (as biotinylated detection antibody) forms a sandwich ELISA pair with ABS 033-10 (as capture antibody) for measuring exendin-4, giving a detection limit of as little as 40 pmol/L in an unoptimized buffer assay.

CULTURE MEDIUM

RPMI 1640 with 10% fetal calf serum

FUSION PARTNER

SP2mIL6

IMMUNIZATION

NMRI x BALB/c mice immunized by intraperitoneal injection

APPLICATION

Method	Usability	Dilution guideline	References
ELISA	Yes	1/4000	
Immunoblotting			
Immunohistochemistry			

The dilution guideline for ELISA is based on use as detection antibody for antigen coated at 0.2 µg/ml. Users should determine the optimal dilutions for their own purposes.

REFERENCES

- Eng J, Kleinman WA, Singh L, Singh G, Raufman JP (1992) Isolation and characterization of exendin-4, an exendin-3 analogue, from *Heloderma suspectum* venom. Further evidence for an exendin receptor on dispersed acini from guinea pig pancreas. *J Biol Chem* 267:7402-7405.
- Goke R, Fehmann HC, Linn T, Schmidt H, Krause M, Eng J, Goke B (1993) Exendin-4 is a high potency agonist and truncated exendin-(9-39)-amide an antagonist at the glucagon-like peptide 1-(7-36)-amide receptor of insulin-secreting beta-cells. *J Biol Chem* 268:19650-19655.

### CONDITIONS

All products are supplied on the understanding that they are for in vitro use only. The information and product are offered without guarantee as the ultimate conditions of use are beyond our control. The animals from which this product was derived have not been exposed to or inoculated with any livestock or poultry disease agents exotic to the United States or Western Europe, and did not originate from facilities where work with exotic disease agents affecting livestock or avian species is carried out.