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Datasheet for 200-4135S

Alkaline Phosphatase Antibody

Overview

Description:	Anti-Alkaline Phosphatase (Calf Intestine) (RABBIT) Antibody - 200-4135S
Item No.:	200-4135S
Size:	25 µL
Applications:	WB, IF, IHC, IP
Reactivity:	Bovine
Host Species:	Rabbit

Product Details

Background:	In most mammals there are four different isozymes: placental, placental-like, intestinal and tissue non-specific (liver/bone/kidney). Alkaline Phosphatase catalytic activity is phosphate monoester + H2O = an alcohol + phosphate.
Synonyms:	rabbit anti-Alkaline Phosphatase Antibody, Alkaline phosphomonoesterase antibody, ALPI antibody, Glycerophosphatase antibody, IAP antibody, Intestinal alkaline phosphatase antibody, Kasahara isozyme antibody
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	ALP1
Reactivity:	Bovine
Immunogen Type:	Native Protein
Immunogen:	Alkaline Phosphatase [Calf Intestine]

Purity/Specificity:	Anti-Alkaline Phosphatase is an IgG fraction antibody purified from monospecific antiserum by a multi-step process which includes delipidation, salt fractionation and ion exchange chromatography followed by extensive dialysis against the buffer stated above. Assay by immunoelectrophoresis resulted in a single precipitin arc against anti-Rabbit Serum as well as purified and partially purified Alkaline Phosphatase [Calf Intestine]. Cross reactivity against Alkaline Phosphatase from other tissues and species may occur but have not been specifically determined.
Relevant Links:	• 200-4135 SDS • UniProtKB - P19111 • GeneID - 280993

Application Details

Tested Applications:	WB
Suggested Applications:	IF, IHC, IP (Based on references)
Application Note:	Anti-Alkaline Phosphatase has been tested against 1.0 ug of Alkaline Phosphatase [Calf intestine] in a standard ELISA using Peroxidase conjugated Affinity Purified anti-Rabbit IgG [H&L] (Goat) code #611-1302 and (ABTS (2,2'-azino-bis-[3-ethylbenthiazoline-6-sulfonic acid]) code # ABTS-100 as a substrate for 30 minutes at room temperature. A working dilution of 1:2,000 to 1:8,000 of the reconstitution concentration is suggested for this product.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:20,000 - 1:100,000
IHC:	1:1,000 - 1:5,000
WB:	1:2,000 - 1:10,000

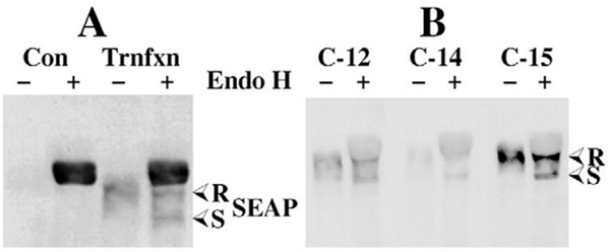
Formulation

Physical State:	Liquid (sterile filtered)
Concentration:	1.0 mg/ml by UV absorbance at 280 nm
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	0.01% (w/v) Sodium Azide
Stabilizer:	None

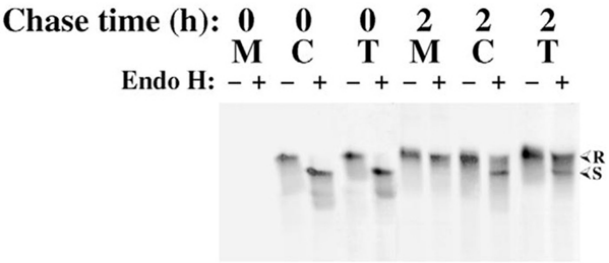
Shipping & Handling

Shipping Condition:	Dry Ice
Storage Condition:	Store vial at -20° C or below prior to opening. This vial contains a relatively low volume of reagent (25 µL). To minimize loss of volume dilute 1:10 by adding 225 µL of the buffer stated above directly to the vial. Recap, mix thoroughly and briefly centrifuge to collect the volume at the bottom of the vial. Use this intermediate dilution when calculating final dilutions as recommended below. Store the vial at -20°C or below after dilution. Avoid cycles of freezing and thawing.
Expiration:	Expiration date is one (1) year from date of receipt.

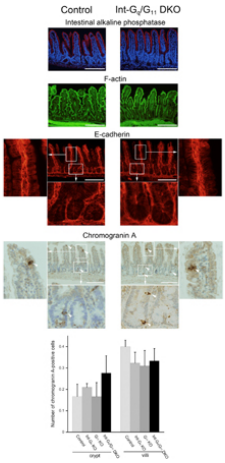
Images



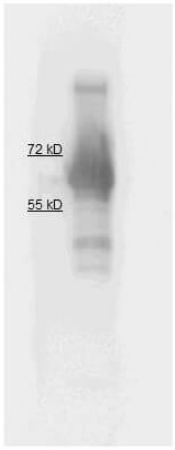
Western Blot
Western blotting of secretory alkaline phosphatase (SEAP) expressed in INS-1 β-cells. (A) A stably transfected clone of INS-1 cells (clone 12, Trnfxn) immunoblotted for alkaline phosphatase next to untransfected control cells (Con). In addition, a faster-migrating specific band is detected in the stably transfected cells. Upon glycan digestion (+), the steady state distribution of SEAP is divided into endo-H-sensitive (S) and endo-H-resistant (R) forms, the latter indicative of a significant Golgi and/or post-Golgi pool of the protein in these cells. (B) A comparison of SEAP expression level in the clone shown in panel A (C-12) to two other independently selected INS-1 clones (C-14 and C-15), each of which maintains a similar proportion of endo-H-resistant SEAP. Fig 1.
PMID: 16608874



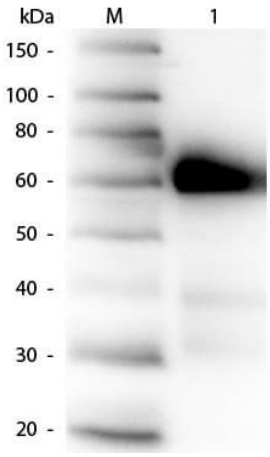
Western Blot
Acquisition of endo H resistance and secretion of SEAP at 2 hours of chase in INS-1 β-cells. Cells were metabolically labeled for 30 minutes and the media (M), cells (C) or total (T, media + cells) were immunoprecipitated with anti-alkaline-phosphatase antibody. At the zero chase time, SEAP had not yet appeared in the medium and all intracellular SEAP was sensitive to digestion with endo H (S). At 2 hours of chase, more than half of labeled SEAP had acquired endo H resistance (R); 35% of labeled SEAP reached the medium (all of which is endo H resistant), and 25% of intracellular SEAP accumulated as an endo-H-resistant form. The data are representative of three experiments. Fig 2.
PMID: 16608874



Immunofluorescence Microscopy
Preservation of enterocytes and enteroendocrine cells and cell polarity in Gαq/11-deficient mice. Immunohistochemical studies were performed for intestinal alkaline phosphatase (enterocyte marker), chromogranin A (endocrine cell marker), F-actin (mainly localized in the subapical membrane), and E-cadherin (localized in the basolateral membrane). No differences were observed between control and Int-Gq/G11 DKO mice. Scale bars: 200 µm. Bottom: Analysis of the number of chromogranin A–positive cells (arrowheads) in crypt and villi in the 4 genotypes. Cell numbers are graphed as the means ± SD (30 crypts and villi/mouse, n = 4 per genotype). Fig 4.
PMID: 28174748



Western Blot
Western Blot of rabbit anti Alkaline Phosphatase antibody Lane 1: Calf intestine Alkaline Phosphatase. Load: ~1.5 µg Block: 5% Blotto 1 hour at 4°C. Primary antibody: diluted to 1:1000 in 5% Blotto overnight at 4°C. Secondary antibody: Goat anti Rabbit 611-103-122 Lot#21231 1:20,000 in MB-070 1 Hour 4°C Substrate: Femtomax 110.



Western Blot
Western Blot of Rabbit anti-Alkaline Phosphatase (Calf Intestine) Antibody. Lane 1: Alkaline Phosphatase (Calf Intestine). Load: 50 ng per lane. Primary antibody: Rabbit anti-Alkaline Phosphatase (Calf Intestine) Antibody at 1:1,000 overnight at 4°C. Secondary antibody: HRP rabbit secondary antibody (p/n 611-103-122) at 1:40,000 for 30 min at RT. Block: (p/n MB-070) for 30 min at RT.

References

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- Teoh JJ et al. BIG1 is required for the survival of deep layer neurons, neuronal polarity, and the formation of axonal tracts between the thalamus and neocortex in developing brain. *PLoS One.* (2017)
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