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Datasheet for 004-0103

Dog IgG Fc

Overview

Description:	Dog IgG Fc Fragment - 004-0103
Item No.:	004-0103
Size:	1 mg
Applications:	SDS-PAGE, ELISA, IHC
Origin:	Dog

Product Details

Background:	Secreted as part of the adaptive immune response by plasma B cells, immunoglobulin G constitutes 75% of serum immunoglobulins. Immunoglobulin G binds to viruses, bacteria, as well as fungi and facilitates their destruction or neutralization via agglutination (and thereby immobilizing them), activation of the compliment cascade, and opsonization for phagocytosis. This product possesses the F(c) region, recognized by high-affinity Fc receptor proteins.
Synonyms:	Dog Immunoglobulin G F(c) fragment, IgG Fc
Species of Origin:	Dog
Format:	IgG Fc
Type:	Native Protein

Target Details

Purity/Specificity:	Dog IgG F(c) Fragment was prepared from normal serum by a multi-step process which includes delipidation, salt fractionation, ion exchange chromatography and papain digestion followed by chromatographic separation and extensive dialysis against the buffer stated above. Dog IgG F(c) Fragment was assayed by immunoelectrophoresis resulted in a single precipitin arc against anti-Dog Serum, anti-Dog IgG and anti-Dog IgG F(c). No reaction was observed against anti-Dog IgG F (ab')2 or anti-Papain.

Application Details

Tested Applications:	SDS-PAGE

Suggested Applications:	ELISA, IHC (Based on references)
Application Note:	Dog IgG F(c) Fragment has been tested in SDS-Page and can be utilized as a control or standard reagent in Western Blotting and ELISA experiments.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	User Optimized
IHC:	User Optimized
WB:	User Optimized

Formulation

Physical State:	Liquid (sterile filtered)
Concentration:	1.2 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:	Wet Ice
Storage Condition:	Store vial at 4° C prior to opening. This product is stable 4° C as an undiluted liquid. Dilute only prior to immediate use. For extended storage mix with an equal volume of glycerol, aliquot contents and freeze at -20° C or below. Avoid cycles of freezing and thawing.
Expiration:	Expiration date is one (1) year from date of receipt.

Images

Immunohistochemistry
Paraffin wax-embedded and hematoxylin-stained sections were used to confirm the absence of pathological changes by light microscopy. For immunohistochemistry, 3–4 µm sections were placed on coated slides and dried to enhance tissue adherence. Antigen retrieval was performed on deparaffinized and rehydrated sections by heating in citrate buffer (pH 6). Primary antibody: Anti-Dog IgG F(c) goat antibody 604-1103 (dilution 1:30 000), Negative control: Dog IgG F(c) fragment 004-0103 (dilution 1:30 000). Immunohistochemically stained canine cornea. The signal intensity scores were epithelium: 0 with superficial artifact: 2, stroma: 2, and DM: 0. The endothelium was detached and could not be assessed in this specimen. Fig 5.
PMID: 35239261.

References

- Harmsen MM et al. Serum immunoglobulin or albumin binding single-domain antibodies that enable tailored half-life extension of biologics in multiple animal species. *Front Immunol.* (2024)
- Herb VM et al. Immunohistochemical staining of immunoglobulin G in healthy equine, canine, and feline corneas. *Vet Opthalmol.* (2022)

Disclaimer

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