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Datasheet for 013-0105

Sheep IgG Fab

Overview

Description:	Sheep IgG Fab Fragment - 013-0105
Item No.:	013-0105
Size:	2 mg
Applications:	IF, LFA, Other
Origin:	Sheep

Product Details

Background:	Sheep IgG Fab Fragment - 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. The F(ab) fragment is the portion of the antibody that binds to the antigen target. The immunoglobulin Fab also possesses one constant and one variable region of both the heavy and light chain.
Synonyms:	Sheep IgG Fab fragment
Species of Origin:	Sheep
Format:	IgG Fab
Type:	Native Protein

Target Details

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

Application Details

Suggested Applications:	IF, LFA, Other (Based on references)
Application Note:	Sheep IgG Fab fragment reagents are ideal for ELISA, western blotting, lateral flow, Immunohistochemistry, as well as other antibody detection methods.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.

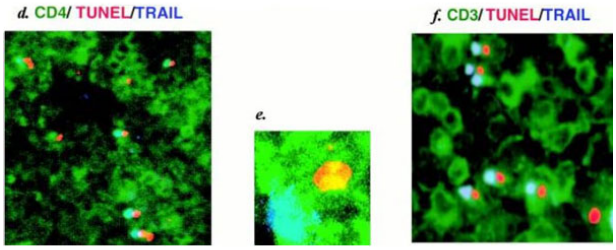
Formulation

Physical State:	Liquid (sterile filtered)
Concentration:	2.0 mg/mL by UV absorbance at 280 nm
Buffer:	0.01 M Sodium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	0.01% (w/v) Sodium Azide
Stabilizer:	None

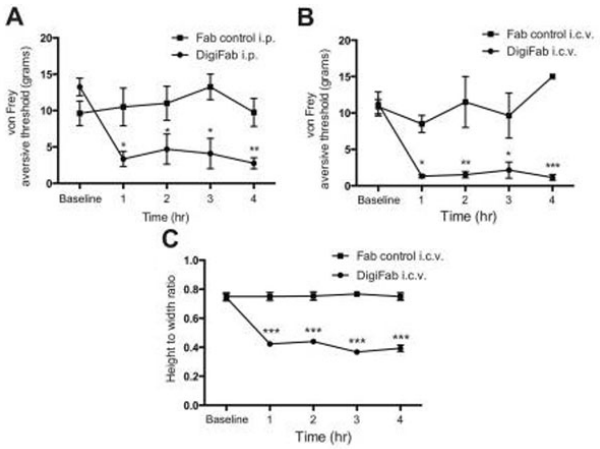
Shipping & Handling

Shipping Condition:	Wet Ice
Storage Condition:	Store vial at 4° C prior to opening. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use. For extended storage, 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



Immunofluorescence Microscopy
Immunofluorescent analysis for death-inducing ligands and their receptors in spleens from HIV-1–infected hu-PBL-NOD-SCID mice. (d) Triple staining for human CD4 (FITC, green), TUNEL (TRITC, red), and TRAIL (Cy5, blue) (magnification ×100). Merging of green and blue is shown as light blue. Merging of green and red is shown as orange. (e) High magnification (×500) of d showing a TUNEL+CD4+ T cell conjugated with a TRAIL+CD4+ T cell (blue). Light blue indicates merging of green and blue. (f) Triple immunostaining for human CD3 (FITC, green), TUNEL (TRITC, red), and TRAIL (Cy5, blue) (magnification ×200). Merging of green and blue is shown as light blue. Merging of green and red is shown as orange. Sheep IgG Fab fragment (p/n 013-0105). Fig 2. PMID: 11238596.



ELISA
Removal of EOLC causes nociception.(A) Rats were treated with i.p. DigiFab or Fab (p/n 013–0105) and their mechanical aversive threshold determined using the von-Frey method hourly over 4 hours. Means (SEM) displayed, n = 8–12 rats per group. (B-F): Rats were treated with i.c.v. DigiFab or Fab control. (B) The aversive threshold response to von Frey hairs is displayed as an average of both hindpaws before and for 4 hours after i.c.v. pre-treatment with Fab control or DigiFab. Means (SEM) displayed, n = 4 rats per group. (C) The eyelid closure response was measured before and hourly for 4 hours after pre-treatment with DigiFab or Fab control. Fig 2. PMID: 31173612.

References

- Bian L et al. Rapid monitoring of vancomycin concentration in serum using europium (⍰) chelate nanoparticle-based lateral flow immunoassay. *Front Chem.* (2021)
- Gross, NB et al. Endogenous Na+, K+-ATPase inhibitors and CSF [Na+] contribute to migraine formation. *PloS One* (2019)
- Miura, Y. et al. Critical contribution of tumor necrosis factor-related apoptosis-inducing ligand (TRAIL) to apoptosis of human CD4+ T cells in HIV-1-infected hu-PBL-NOD-SCID mice. *The Journal of Experimental Medicine* (2001)

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