PRODUCT INFORMATION SHEET

AssayProven™

Monoclonal Antibody to Influenza A Nucleoprotein

Cat. No. AXIFA02RAB	Recombinant Antibody	STORE AT −20 °C

Validated Assay Configuration – The following configuration represents the AssayProven™ recommended reagent combination for the validated application listed below.

VALIDATED APPLICATION	LFA
CAPTURE REAGENT	AXIFA01RAB
DETECTION REAGENT	AXIFA02RAB
PERFORMANCE EVALUATION MATERIAL	Recombinant Influenza A nucleoprotein

Product Characteristics

SPECIES OF ORIGIN	Mouse
PRODUCTION SYSTEM	CHO cells
RECOMBINANT	Yes
ISOTYPE	IgM
MOLECULAR WEIGHT	900 kDa
FULL-LENGTH PROTEIN	Yes
APPEARANCE	Clear liquid
FORMAT	Liquid
CONCENTRATION	As reported
METHOD TO DETERMINE CONCENTRATION	OD280 (E0.1% = 1.4)
LYOPHILIZED	No
RECONSTITUTION METHOD	Not applicable
SONICATION REQUIRED PRIOR TO USE	No

meridian LIFE SCIENCE®

Meridian Life Science, Inc.
5171 Wilfong Road
Memphis , TN 38134
USA

www.meridianlifescience.com
Tel: (+1) 901-382-8716
Email: info@meridianlifescience.com
Orders: orders@meridianlifescience.com

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Biological Characteristics

IMMUNOGEN	Influenza A nucleoprotein
IMMUNOGEN SEQUENCE	Not characterized
AMINO ACID SEQUENCE	Not characterized
TAG PROTEIN	Not characterized
EPITOPE	Not characterized
CROSS-REACTIVITY	Not characterized
IMMUNOREACTIVITY	Not characterized

Quality Attributes

PURITY	>90%
METHOD TO DETERMINE PURITY	SDS-PAGE
PURIFICATION METHOD	Protein G affinity chromatography
MAXIMUM BIOBURDEN	Not characterized

Binding Characteristics

ASSOCIATION RATE CONSTANT (K_a)	Not characterized
DISSOCIATION RATE CONSTANT (K_d)	Not characterized
EQUILIBRIUM DISSOCIATION CONSTANT (K_D)	Not characterized
BINDING DETERMINATION METHOD	Not characterized

Formulation

BUFFER / PH	20 mM phosphate buffer with 150 mM sodium chloride, pH 7.4
PRESERVATIVE	None

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Storage & Stability

STORAGE TEMPERATURE	−20 °C
SHELF LIFE	3 years
STABILITY AT 2–8 °C	2 weeks
STABILITY AT −20 °C	3 years
STABILITY AT −40 °C	Not characterized
STABILITY AT −80 °C	Not characterized

Other Technical characteristics

ISOELECTRIC POINT (pI)	Not characterized
INACTIVATION METHOD	Not applicable

Notes & Safety Information

SAFETY INFORMATION	Refer to the appropriate Safety Data Sheet (SDS) for additional information.
NOTES	This reagent has been manufactured under ISO 13485 quality management system and is suitable for research or further manufacturing use only. Centrifuge before opening to ensure complete recovery of vial contents.

Performance Validation Report

The following pages contain the applicable AssayProven™ Performance Validation Report.

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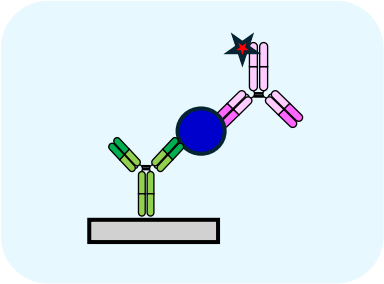
AssayProven™ Recommended Influenza A Antibody Pair

Recommended Pair Summary

Multiple antibody combinations were screened under standardized assay conditions to identify the optimal antibody pair for lateral flow immunoassay development. The recommended AssayProven™ Influenza A antibody pair demonstrated the best overall analytical performance, including excellent analytical sensitivity, high clinical specificity, and no detectable cross-reactivity across multiple influenza A lineages, supporting its suitability for lateral flow immunoassay development.

Category	Target	Format	Item Type	Cat. #	Description	Function
Respiratory	Influenza A	LFA	Antibody	AXIFA01RAB	mAb to Influenza A NP	Capture
			Antibody	AXIFA02RAB	mAb to Influenza A NP	Detector
			Antigen		Recombinant Influenza A NP	Analyte

Method: Sandwich lateral flow immunoassay (LFA)



Meridian capture antibody immobilized on membrane

Meridian recombinant antigen

Meridian detection antibody

Figure 1. Schematic diagram of a sandwich lateral flow immunoassay using AssayProven™ antibody pairs.

Analytical & Clinical Performance

Analyte	Source	Limit of Detection (LoD)
Rec. Flu A nucleoprotein	Meridian	1.0 ng/mL
Flu A (H1N1)pdm09 virus (ATCC VR-1894)	ATCC	1.00×10^3 $TCID_{50}$/mL
Flu A, A/Darwin/9/21 (H3N2) virus (0810650CF)	Zeptometrix	3.74×10^3 $TCID_{50}$/mL

Table 1. Analytical sensitivity of the AssayProven™ Influenza A antibody pair using recombinant antigen and cultured Influenza A viruses.

Clinical specificity:

100% (30/30) using 30 influenza A-negative samples as confirmed by a commercial COVID/FLU antigen assay.

Potential cross-reactivity:

No cross-reactivity was observed using samples positive for SARS-CoV-2, Influenza B, Parainfluenza, Echovirus, Rhinovirus, and RSV.

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