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Datasheet for R402-0050

Guinea Pig RBCs 10% Washed Pooled

Overview

Description:	Guinea Pig Red Blood Cells (RBC) 10% Washed Pooled Cells - R402-0050
Item No.:	R402-0050
Size:	50 mL
Applications:	Cellular Assay, Other
Origin:	Guinea Pig

Product Details

Background:	Guinea pig whole blood is washed to remove the platelet rich plasma, buffy coat layer, and leukocytes (WBC). Red blood cells are supplied as a 10 percent suspension in phosphate buffered saline (PBS). Guinea pig red blood cells are useful for the titration of complement, adsorption procedures, testing for agglutinins/HA assays, and for the preparation of stroma as particulate reagents. Guinea pig red blood cells are perishable and are collected and processed upon receipt of your order.
Synonyms:	Guinea Pig Washed Pooled Cells, Guinea Pig WPCs, Guinea Pig Red Blood Cells, Guinea Pig RBCs, erythrocytes
Species of Origin:	Guinea Pig

Target Details

Relevant Links:

- R402 SDS

Application Details

Suggested Applications:	Cellular Assay, Other (Based on references)
Application Note:	Guinea pig whole blood cells are used for complement titration, adsorption procedures, HA assays and for the preparation of stroma as particulate reagents.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.

Tissue Data

Tissue Type:	Red Blood Cells
Sex:	Mixed
Strain:	Guinea Pig - Mixed

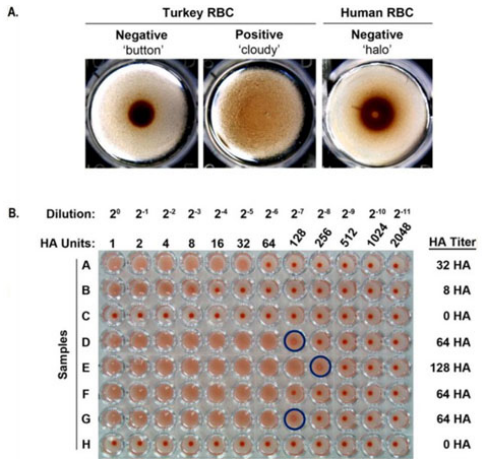
Formulation

Physical State:	Liquid
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Sterility:	Non-sterile
Preservative:	None
Stabilizer:	None

Shipping & Handling

Shipping Condition:	Wet Ice
Storage Condition:	Store guinea pig washed pooled red blood cells at 4° C prior to opening. Be advised that blood is a perishable product and exact shelf may depend on application.
Expiration:	This product MAY be stable for up to two (2) weeks if properly stored and handled.

Images



Agglutination

Hemagglutination (HA) assay (A) Samples lacking agglutinating activity (left panel) or containing IAV with agglutinating activity (center panel) were mixed with an equal volume of turkey RBCs (0.5%) in a U-bottomed microtiter plate and incubated for 30 minutes at room temperature; and a sample lacking agglutinating activity (right panel) was mixed with an equal volume of guinea pig [or human] RBCs (0.75%) in a U-bottomed microtiter plate and incubated for 1 hour at room temperature. At the end of each incubation period, 4X magnified images of individual microtiter plate wells were captured using a tissue culture microscope fitted with a digital camera. The left panel shows a characteristic negative 'button' result; the central panel shows the evenly distributed, 'cloudy' appearance of a positive agglutination result; and the right panel shows a thick ring of cells, i.e. a 'halo', negative result. (B) Samples containing IAV with agglutinating activity (see rows A, B, and D-G) or lacking IAV with agglutinating activity (see rows C and H) were subjected to an HA assay. Samples were 2-fold serially diluted (20 – 211) in a 50-µl final volume, and then mixed with an equal volume of turkey RBCs (0.5%) in a U-bottomed microtiter plate. The entire microtiter plate was photographed after 30 minutes incubation at room temperature. The dilutions for each column and the corresponding HA units are indicated at the top of the panel, and the HA titer for each sample is indicated to the right. Wells exhibiting partial agglutination are indicated by dark blue circles. Turkey red blood cells (RBCs) (p/n R408-0050) and Guinea pig red blood cells (RBCs) (p/n R402-0050). Figure 4. PMID: 25321410.

Hemagglutination of EV-D68 isolates on guinea pig and human red blood cells

Virus isolate	Hemagglutination titer	
	Human	Guinea pig
New York	0	0
Fermon	0	256
Rhyne	0	0
947	0	256
949	0	64
952	0	0
953	0	0
956	0	512
Influenza virus A/WSN	256	1,024

Agglutination

Hemagglutination assays were done in V-shaped microtiter plate. Equal volumes of 0.5% washed human or guinea pig (p/n R402-0050) red blood cells were added to serial 2-fold dilutions of virus. Plates were incubated at 4°C, and readings were made every 30 min for 2 h. Activity of neuraminidase was verified by lack of influenza virus hemagglutination on treated guinea pig red blood cells (data not shown). Table 1. PMID: 31641090.

References

- Solano-Gálvez SG et al. Pulmonarom® promotes TLR-related and interferon-related antiviral responses during influenza A (H1N1 and H3N2) infection in human monocyte-derived dendritic cells. *Front Cell Infect Microbiol.* (2026)
- Suryadevara N et al. Functional and structural basis of human parainfluenza virus type 3 neutralization with human monoclonal antibodies. *Nat Microbiol.* (2024)
- Rosenfeld AB et al. Neurotropism of Enterovirus D68 Isolates Is Independent of Sialic Acid and Is Not a Recently Acquired Phenotype. *mBio.* (2019)
- Eisfeld AJ et al. Influenza A virus isolation, culture and identification. *Nat Protoc.* (2014)

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