

Datasheet for R408-0100**Turkey Red Blood Cells 10% Washed Pooled Cells****Overview**

Description:	Turkey Red Blood Cells (RBC) 10% Washed Pooled Cells - R408-0100
Item No.:	R408-0100
Size:	100 mL
Applications:	Biochemical Assay, Cellular Assay, Other
Origin:	Turkey

Product Details

Background:	Turkey 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). Turkey 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. Turkey red blood cells are perishable and are collected and processed upon receipt of your order.
Synonyms:	Turkey Washed Pooled Cells, Turkey WPCs, Turkey Red Blood Cells, Turkey RBCs, Turkey erythrocytes
Species of Origin:	Turkey

Target Details

Relevant Links:	R408 SDS
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Application Details

Suggested Applications:	Biochemical Assay, Cellular Assay, Other (Based on references)
Application Note:	Turkey red blood cells are useful 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:	Turkey - Mixed

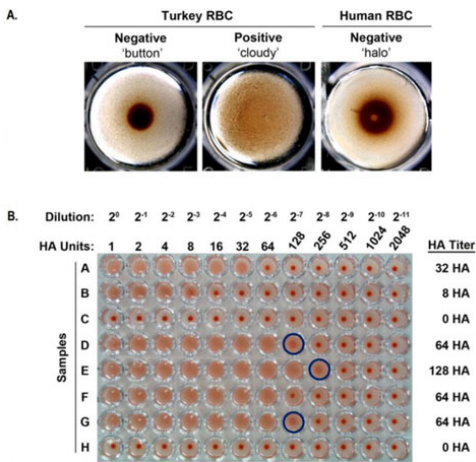
Formulation

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 turkey 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.

In vitro egress assay in the presence of CT120, CT149 and CT-P27.

Antibody (μg/ml)	0.02	0.10	0.39	1.56	6.25	25	100	400
Osetamivir (μM)	0.002	0.010	0.039	0.156	0.625	2.5	10	40
No antibody	+	+	+	+	+	+	+	+
CT-P6	+	+	+	+	+	+	+	+
Osetamivir	-	-	-	-	-	-	-	-
H1N1 CT120	+	-	-	-	-	-	-	-
CT149	+	+	+	+	+	+	+	+
CT-P27	+	+	-	-	-	-	-	-
H3N2 CT120	+	+	+	+	+	+	+	+
CT149	+	+	-	-	-	-	-	-
CT-P27	+	+	+	-	-	-	-	-

+: Hemagglutination (= No egress inhibition)
 -: No hemagglutination (= Egress inhibition)

Agglutination

To address whether CT120, CT149, and CT-P27 could inhibit the egress step in the virus life cycle, *in vitro* egress assay was performed. MDCK cells were infected with A/Ohio/1983 (H1N1) or A/Philippines/2/1982 (H3N2). The infected cells were incubated to produce progeny viruses in the presence of CT120, CT149, or CT-P27. Released viruses were measured by HA assay since CT120, CT149, and CT-P27 could not inhibit hemagglutination even at 1.2 mg/mL concentration. The results show that CT120 and CT149 inhibited egress of H1N1 and H3N2 viruses, respectively, and CT-P27 inhibited egress of both H1N1 and H3N2 viruses. Viral antigens were mixed with 2-fold serially diluted antibodies in PBS, dispensed into 96-well plates, and incubated at 20–22°C for 30 min. Next, 0.5% suspension of turkey erythrocytes (p/n R408-0050) was added to each well, and the mixture was incubated for 30 min at 20–25°C before visual scoring for hemagglutination activity. Table 3. PMID: 32726321.

References

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- Gilchuk IM et al. Pan-H7 influenza human antibody virus neutralization depends on avidity and steric hindrance. *JCI Insight*. (2025)
- Miller NL et al. Conserved topology of virus glycoepitopes presents novel targets for repurposing HIV antibody 2G12. *Sci Rep*. (2022)
- Saenwongsa W, Nithichanon A, Chittaganpitch M, et al. Metformin-induced suppression of IFN-α via mTORC1 signalling following seasonal vaccination is associated with impaired antibody responses in type 2 diabetes. *Sci Rep*. (2020)
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- Eisfeld AJ et al. Influenza A virus isolation, culture and identification. *Nat Protoc*. (2014)

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