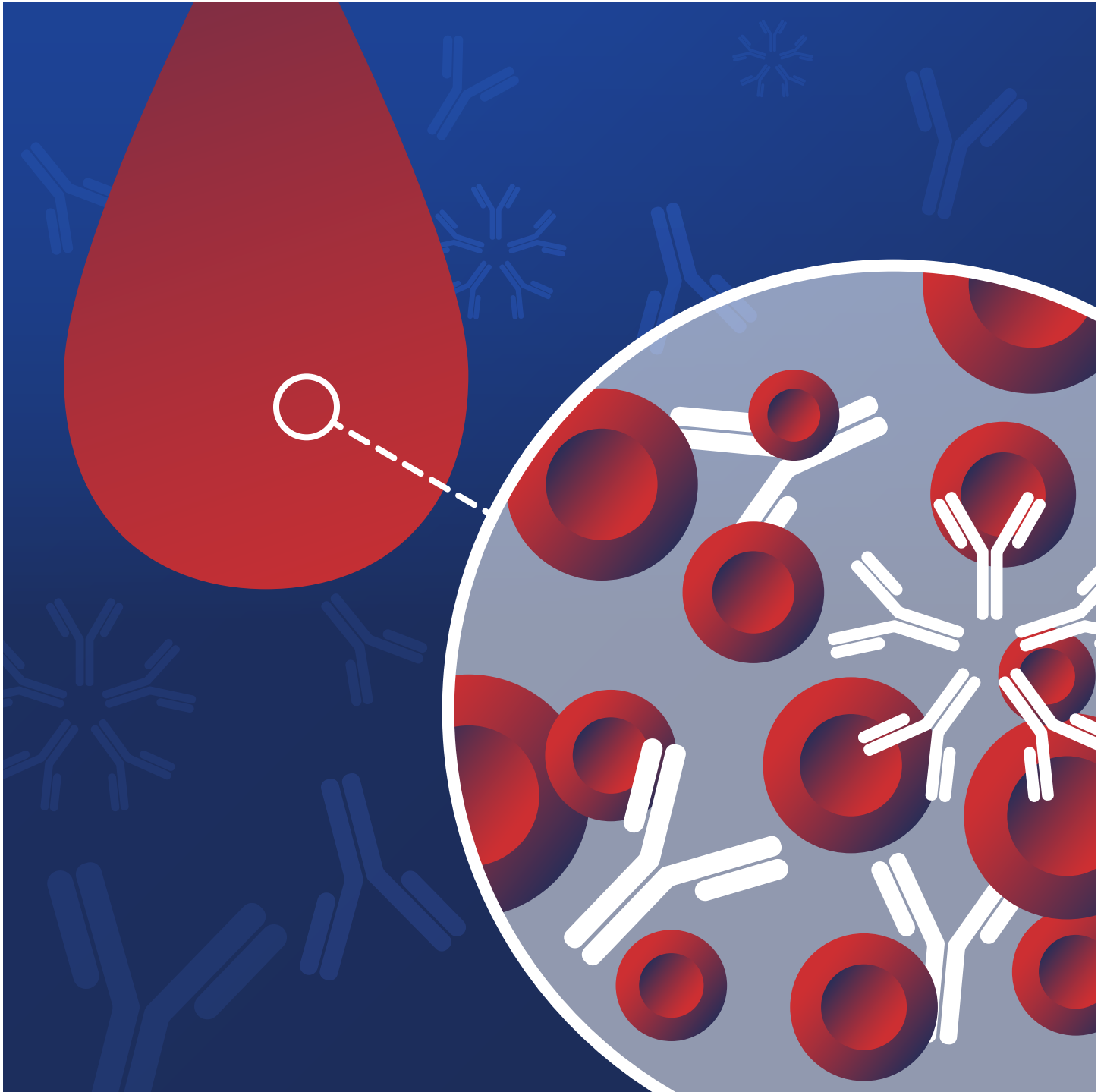


IH-Titration Solution

Precision at the Heart of Concentration



IH-Titration Solution

A dilution medium for the titer determination of antibodies

- Can be used manually or on a fully automated IH-500 NEXT System
- Standardized medium for IH-Cards
- IgG or IgM titration with all IH-cells including:
 - Reverse
 - Screening
 - Identification
 - Extended panel kits
- Use with IH-Cards: Anti-IgG or ABO Neutral



IH-Titration Solution

IH-Titration Racks and the IH-Titration Solution on the IH-500 NEXT System

- Fully automated and integrated with IH-Com



IH-Titration Rack

Accuracy | Traceability | Reliability

General Background

Titration: a semi-quantitative method

- For the prediction and management of hemolytic disease of the fetus and newborn (HDFN)²
- ABO mismatched organ transplant²
 - Monitoring of treatment to reduce antibody titer

Other clinical scenarios for titration*

- Micro-titration compared to dilutions of a standard of a known concentration³
- Assessment of either the characteristics of a new antiserum or the antigen site density of red blood cells
- Determination of the relative specificity of autoantibodies in warm antibody immune hemolytic anaemia (WAIHA)
- Investigation of high-titer low-avidity (HTLA) antibodies such as the Knops blood group system^{4,5}
- Determination of the titer, specificity, and thermal amplitude of a cold autoantibody such as anti-I

* List not exhaustive



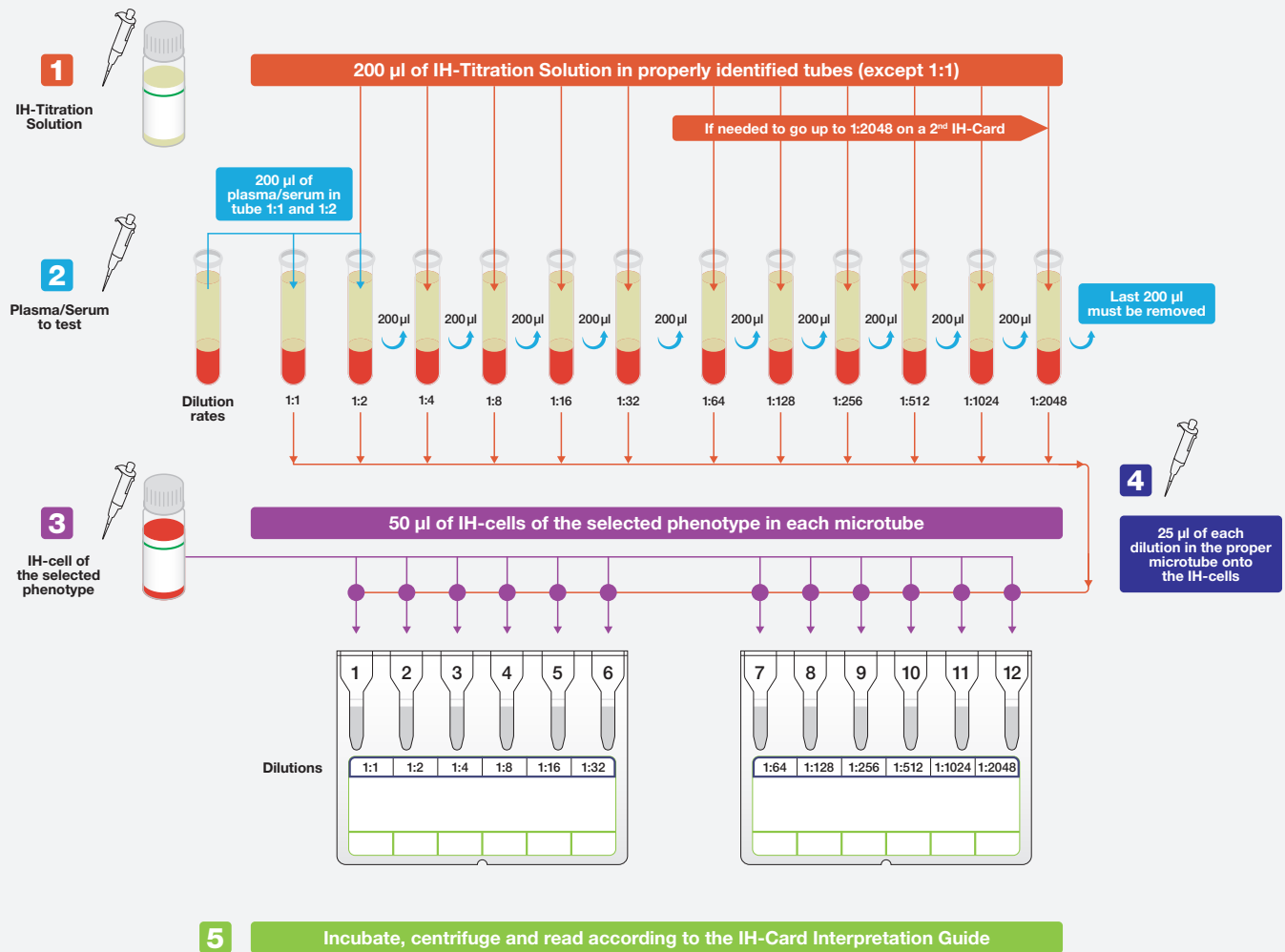
Pregnancy



Transplant

Manual Method

The IH-Titration Solution is used for the two-fold serial dilution of plasma/serum prior to antibody titration in IH-Cards. The 5 steps are shown below.



Example of Results

- Three antibodies of different strengths, titer value, and score, with the same end point
- Scoring system: strongest (12) to negative reactions (0)

Samples 1 & 2	Could be parallel titrations of an antibody implicated in HDFN
Sample 2	Most recent sample, shows a significant rise in the titer score value
Sample 3	Shows an antibody of high titer, but low avidity which is reflected in the reaction grades and the final end point

	Dilutions	1:1	1:2	1:4	1:8	1:16	1:32	1:64	1:128	1:256	1:512	1:1024	1:2048	Titer	End point	Score
Sample 1	Grade	3+	3+	3+	2+	2+	2+	1+	+/-	+/-	-	-	-	64		
	Value	10	10	10	8	8	8	5	2	2	0	0	0		1:256	63
Sample 2	Grade	4+	4+	4+	3+	3+	3+	2+	1+	+/-	-	-	-	128		
	Value	12	12	12	10	10	10	8	5	2	0	0	0		1:256	81
Sample 3	Grade	1+	1+	1+	1+	+/-	+/-	+/-	+/-	+/-	-	-	-	8		
	Value	5	5	5	5	2	2	2	2	2	0	0	0		1:256	30

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2. Joint United Kingdom (UK) Blood Transfusion and Tissue Transplantation Services Professional Advisory Committee. Guidelines for the Blood Transfusion Services 13.4: Antibody quantification and titration. <https://www.transfusinguidelines.org/red-book/chapter-13-patient-testing-red-cell-immunohaematology/13-4-antibody-quantification-and-titration>, accessed October 13, 2023.
3. Dupont M et al. (2007). Microtitration of anti-RH1 antibodies: Interest in the follow-up of pregnant women. *Transfusion Clinique et Biologique : Journal de la Societe Francaise de Transfusion Sanguine* 14, 381–385.
4. Reid ME et al. (2012). *The blood group antigen facts book*. 3rd ed. London: Elsevier 549–555.
5. Rolih S. (1990). A review: antibodies with high-titer, low avidity characteristics. *Immunohematol* 59–67.

Ordering Information

Catalog #	Description	
813560100	IH-Titration Solution (Id-n°: 76040), 10 x 10 ml	1 Set
813550100	IH-Titration Rack (Id-n°: 76050), 10 racks of 60 wells.....	1 Set

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