



For the inhibition of irregular anti-erythrocytic antibodies

Recombinant Blood Group Antigens

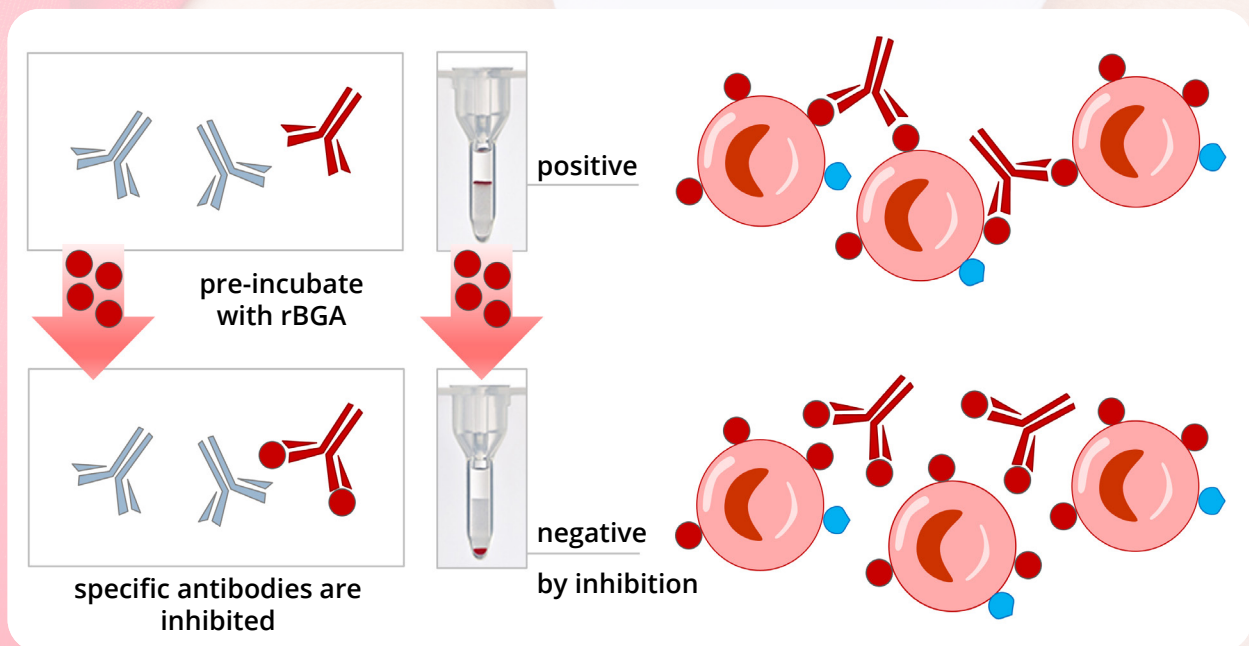
Solution for limited RBC Alloantibody Detection

In the scientific analysis of erythrocyte antibodies, complex reaction patterns can significantly interfere with classification and identification. In cases where the sample contains, for example, antibody mixtures, autoantibodies or alloantibodies against high-frequency blood group antigens, unambiguous antibody detection can be difficult due to consistently positive or overlapping reactions in the indirect antiglobulin test. Recombinant blood group antigens (rBGA) from imusyn enable the specific inhibition of antibodies in the gel card test.

rBGA are for research use only.

rBGA Method: Principle of hemagglutination inhibition assay

- Preincubation of 2 µl rBGA with 25 µl patient serum or plasma for 30 minutes: neutralization of specific red cell antibodies.
- Serum or plasma can be used for indirect antiglobulin test with conventional gel card systems (Grifols DG Gel, Bio-Rad ID-System, QuidelOrtho BioVue, QuidelOrtho MTS, or Cellbind Screen) or in tube testing.



References

- Seltsam A, Blasczyk R. Recombinant blood group proteins for use in antibody screening and identification tests. *Curr Opin Hematol* 2009;16:473-9.
- Seltsam A, Wagner F, Lambert M, et al. Recombinant blood group proteins facilitate the detection of alloantibodies to high-prevalence antigens and reveal underlying antibodies: results of an international study. *Transfusion* 2014;54:1823-30.
- Seltsam A, Blasczyk R. Recombinant blood group proteins in clinical practice - from puzzling to binary antibody testing. *ISBT Science Series* 2016; 11:243-249.
- Grueger D, Schneeweiss C, et al. Two novel antithetical KN blood group antigens may contribute to more than a quarter of all KN antisera in Europe. *Transfusion* 2020 Oct;60(10):2408-2418.
- Flegel WA, Srivastava K. When recombinant proteins can replace rare red cells in immunohematology workups. *Transfusion* 2021 Jul;61(7):2204-2212.

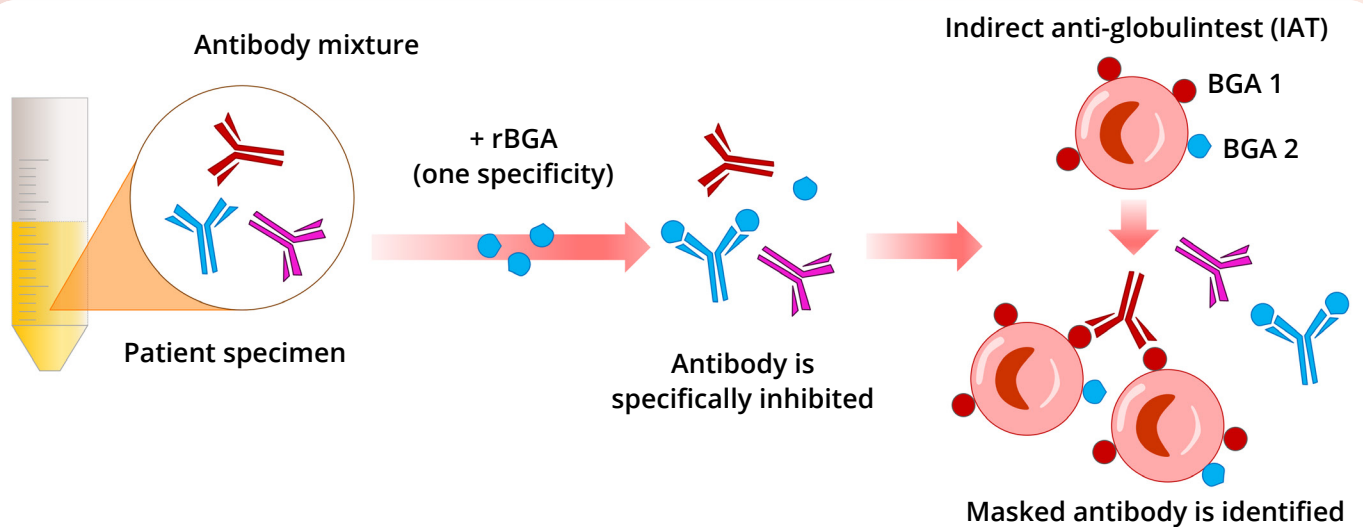
rBGA Products

Article number	rBGA	REF	Protein Specification	Quantity
004 010 001	Chido(a)	R_Ch(a)	CH1	1 vial à 300 µl
004 010 003	CROM/DAF	R_CROM	CROM1, CROM2, CROM5 , CROM6, CROM7, CROM8, CROM10, CROM11, CROM12, CROM13, CROM14, CROM15, CROM16, CROM17, CROM18, CROM19, CROM20	1 vial à 300 µl
004 010 004	Dombrock(a)	R_Do(a)	DO1 , DO3, DO4, DO5, DO6, DO7, DO8, DO9, DO10	1 vial à 300 µl
004 010 005	Dombrock(b)	R_Do(b)	DO2 , DO3, DO4, DO5, DO6, DO7, DO8, DO9, DO10	1 vial à 300 µl
004 010 006	Duffy(a)	R_Fy(a)	FY1 , FY6	1 vial à 300 µl
004 010 007	Duffy(b)	R_Fy(b)	FY2 , FY6	1 vial à 300 µl
004 010 008	Kell-Kp(b)-Js(a)	R_grKba	KEL1, KEL4 , KEL5, KEL6, KEL11, KEL12, KEL13, KEL14, KEL16, KEL18, KEL19, KEL20, KEL22, KEL25, KEL26, KEL27, KEL28, KEL29, KEL30, KEL32, KEL33, KEL34, KEL35, KEL36, KEL37, KEL38, KEL40	1 vial à 300 µl
004 010 009	Indian(b)	R_In(b)	IN2 , IN3, IN4, IN5, IN6	1 vial à 300 µl
004 010 010	JMH	R_JMH	JMH1 , JMH2, JMH3, JMH4, JMH5, JMH6, JMH7, JMH8	1 vial à 300 µl
004 010 011	Cellano-Kp(b)-Js(a)	R_klkba	KEL2, KEL4 , KEL5, KEL6, KEL11, KEL12, KEL13, KEL14, KEL16, KEL18, KEL19, KEL20, KEL22, KEL25, KEL26, KEL27, KEL28, KEL29, KEL30, KEL32, KEL33, KEL34, KEL35, KEL36, KEL37, KEL38, KEL40	1 vial à 300 µl
004 010 014	Landsteiner-Wiener(a)	R_LW(a)	LW5 , LW6, LW8	1 vial à 300 µl
004 010 015	Rodgers(a)	R_Rg(a)	RG1	1 vial à 300 µl
004 010 016	Scianna1	R_Sc1	SC1 , SC3, SC5, SC6, SC7, SC8, SC9	1 vial à 300 µl
004 010 017	Xg(a)	R_Xg(a)	XG1	1 vial à 300 µl
004 010 018	Cartwright(a)	R_Yt(a)	YT1 , YT3, YT4, YT5, YT6	1 vial à 300 µl
004 010 019	Kn(a)/DACY	R_CR1_2	KN1 , KN3, KN4, KN5, KN8, KN9, KN11	1 vial à 300 µl
004 010 020	YCAD	R_YCAD	KN12	1 vial à 300 µl
004 010 021	Lutheran(a)/Au(a)	R_Lu(a)_2	LU1 , LU4, LU5, LU6, LU7, LU8, LU12, LU13, LU16, LU17, LU18, LU20, LU21, LU22, LU23, LU24, LU25, LU26, LU27, LU28, LU29, LU30	1 vial à 300 µl
004 010 022	Lutheran(b)/Au(b)	R_Lu(b)_2	LU2 , LU4, LU5, LU6, LU7, LU8, LU12, LU13, LU16, LU17, LU19 , LU20, LU21, LU22, LU23, LU24, LU25, LU26, LU27, LU28, LU29, LU30	1 vial à 300 µl

List of rBGAs with corresponding antigens. Serologically tested antigens are in bold.

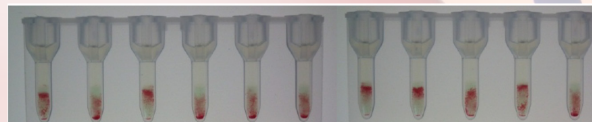
rBGA Features and Advantages

- Simple and fast test system
- Antibody detection and identification in one step
- Improved resolution of antibody mixtures
- Neutralisation of irrelevant antibodies against high-frequency antigens

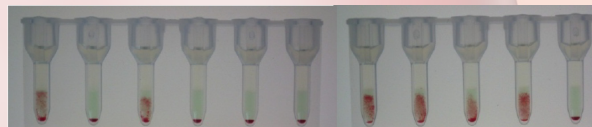


Serum sample with anti-Jk^a + anti-Kn^a

without
recombinant
Knops protein



with
recombinant
Knops protein



Kidd phenotype of
test erythrocytes

JK(a+b-)
JK(a-b+)
JK(a+b-)
JK(a-b+)
JK(a-b+)
JK(a-b+)
JK(a+b-)
JK(a+b+)
JK(a+b-)
JK(a-b+)

**Specific detection of admixed
alloantibodies in the presence of anti-Kn^a**



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For Research Use Only.
Not for use in diagnostic procedures.

Contact worldwide

inno-train Diagnostik GmbH
Niederhöchstädter Str. 62
61476 Kronberg
Germany

Phone +49 (0)6173- 6079- 30
Fax +49 (0)6173- 6079- 50
info@inno-train.de

North American Division

inno-train Diagnostik
108 Utica Street
Clinton NY 13323
USA

Work +1 (888) 352 2196
Fax +1 (315) 381 5609
info@innotrain.org