



imusyn

DaraEx

anti-CD38 antibody neutralizing agent

FluoGene

Ready Gene

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Software

PCR & Electrophoresis

SuBiTo

Ready Plate

DNA-Extraction

DRUG-INDUCED MASKING OF BLOOD GROUP ANTIGENS

Antibody based drugs can disturb serological blood group testing since the examined antigens can be masked by the therapeutic antibodies. An anti-CD38 antibody for treatment of multiple myeloma shows a strong interference in the indirect antiglobulin test (IAT) where most of the reactions turn to unspecifically (wrong) positive. The time consuming standard technique using Dithiothreitol (DTT) counteracts the interference but has major drawbacks like destruction of Kel antigens or hemolysis. The imusyn DaraEx compound inhibits the agglutination effect of anti-CD38 in IAT without side effects.

DaraEx METHOD

- Preincubation of test cells with DaraEx for 30 min
- Cells can be used for indirect antiglobulin test with conventional gel card systems

Cell Phenotype	Dara treated cell samples without serum				Dara treated cell samples with anti-Kell serum				Dara treated cell samples with anti-Fy(a) serum			
	K,k,Fy(b)		k,Fy(a)		K,k,Fy(b)		k,Fy(a)		K,k,Fy(b)		k,Fy(a)	
TBS	+	-	+	-	+	-	+	-	+	-	+	-
DaraEx	-	+	-	+	-	+	-	+	-	+	-	+



DaraEx inhibits anti-CD38 ("Dara"). Erythrocytes were preincubated with DaraEx or Tris buffered saline (TBS) as incubation control. Subsequently, the cells were incubated with anti-CD38 ("Dara") (left), anti-CD38 + anti-Kell serum (middle), anti-CD38 + anti-Fy(a) serum (right) and analyzed in indirect antiglobulin test (IAT).

Dara treated cells react false positive in the absence of antibodies; this effect is diminished after DaraEx treatment (left). Dara treated cells react false positive in the presence of anti-Kell (middle) or anti-Fy(a) serum (right); this effect is diminished after DaraEx treatment.

DaraEx ADVANTAGES

- Quick and simple procedure
- Specific inhibition of anti-CD38 reactivity without affecting other antigens or alloantibody reactions
- No side effects like destruction of blood group antigens or hemolysis as described for the standard DTT treatment
- No need for expensive anti-idiotypic antibodies or soluble CD38 protein for blocking anti-CD38

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DaraEx*
anti-CD38 antibody neutralizing agent

One vial à 450 µl

*For Research Use Only.