

Preventing Assay Interference Caused by HAMA and RF

THBR3

A non-specific reaction blocking reagent ideal for latex assays

THBR3 is a blocking reagent designed to effectively suppress non-specific reactions, such as HAMA, primarily in latex-based reagents.

It prevents non-specific reactions against mouse-derived assay antibodies in human specimens, enabling more accurate and reliable measurements.

Key Features of THBR3



Ideal for latex-based reagents

It consistently demonstrates excellent effectiveness in inhibiting non-specific reactions, particularly in latex-based immunoassays (e.g., LTIA).



Significantly reduces false positives/negatives

It effectively blocks non-specific interferents such as human anti-mouse antibodies (HAMA), rheumatoid factor (RF), and glycan antibodies.



Uses high-quality purified antibodies

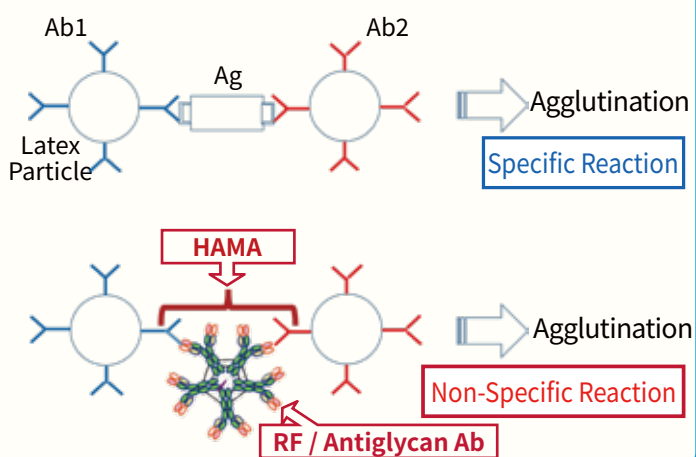
The antibodies of THBR3, derived from mouse ascites, are IgG-purified to high purity using Protein G, ensuring consistent quality.

Problem: Measurement interference

Unintended particle agglutination

In immunoassays, human anti-mouse antibodies (HAMA) and rheumatoid factor (RF) present in patient specimens may bind to assay antibodies. These unintended immune complexes can induce particle aggregation independent of the target antigen-antibody reaction, resulting in non-specific immune reactions. Consequently, they may produce falsely elevated (false-positive) or falsely reduced (false-negative) results, compromising assay accuracy and potentially leading to incorrect clinical interpretation.

Non-Specific Immune Reaction (Latex-Based)

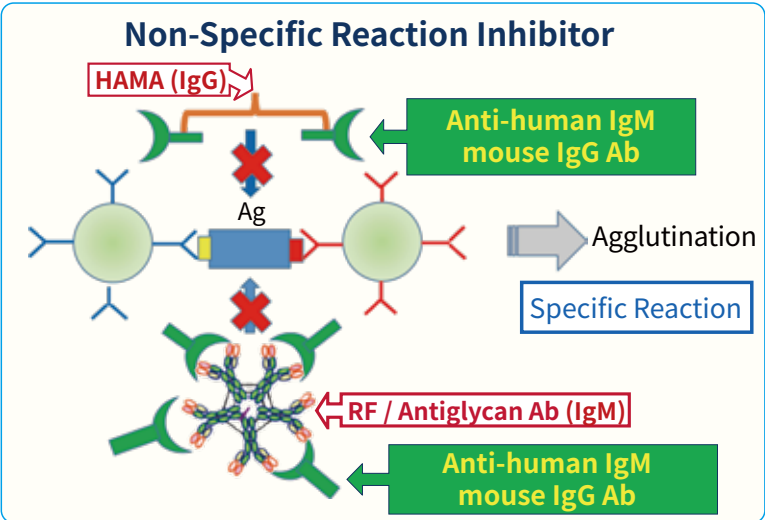


THBR3 solves this problem. Please see the back side. 

Solution: Inhibition by THBR3

Targeted Blocking of Interferents

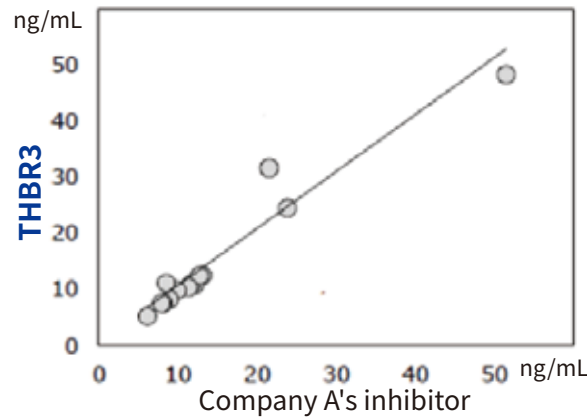
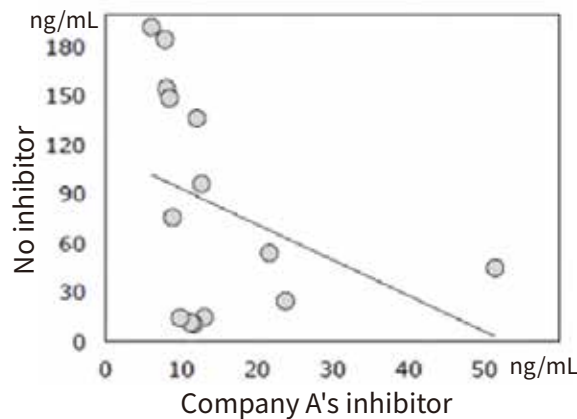
THBR3 (anti-human IgM mouse IgG antibody) directly addresses the root cause of non-specific reactions by adding it to the assay system. THBR3 contained in the reagent efficiently captures and blocks non-specific interfering substances, such as HAMA and RF, thereby preventing their binding to the assay antibodies. This blocking action allows only the specific immune reaction to the target antigen to be detected, enabling the acquisition of highly reliable assay results.



Evaluation Data: Inhibitory Effect of Non-Specific Reactions in LTIA

RF-positive specimen	No inhibitor (ng/mL)	Company A's inhibitor (ng/mL)	THBR3 (ng/mL)
Specimen 1	154.4	8.1	7.5
Specimen 2	148.7	8.5	11.1
Specimen 3	184.6	7.9	7.5
Specimen 4	192.0	6.1	5.2

[Result]
This evaluation using RF-positive specimens in an LTIA (latex immunoturbidimetric assay) demonstrated that, while markedly elevated readings (false positives) were observed when adding no inhibitor, **the addition of THBR3 significantly and consistently suppressed non-specific reactions.**



THBR3 Specification Sheet

Code	8TTHBR3	Package	1.0 mL
Description	Mouse anti Human IgM Ab	Storage	Below -20°C. Avoid repeated freeze/thaw cycles.
Source	Mouse ascites	Application	This is an anti-human IgM antibody derived from mouse ascites fluid that primarily suppresses nonspecific reactions of Human IgM in latex-based materials, as well as nonspecific reactions to mice in human samples.
Purification	IgG purification using Protein G		
Form	PBS(-) containing 0.05% NaN3		
Protein Concentration	10 mg/mL	Note	The optimum condition should be determined for each assay



Institute of Immunology Co., Ltd.
1-1-10, Koraku, Bunkyo-ku, Tokyo 112-0004, JAPAN
Tel +81-3-3814-4081
e-mail : info@tokumen.co.jp
URL : <https://www.tokumen.co.jp/en/>

