

### Instruction Manual

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| Catalog Number      | PK-AB913-176  |
| Quantity            | 500 µg  |
| Description         | MHC Class I is a membrane spanning molecule consisting of 2 proteins. MHC Class I is just about 350 amino acids in length, with roughly 75 amino acids at the carboxylic end comprising the transmembrane and cytoplasmic portions. The remaining 270 amino acids are divided into three globular domains labeled Alpha-1, Alpha-2 and Alpha-3 prime, with Alpha-1 being closest to the amino terminus and Alpha-3 closest to the membrane. The second portion of the molecule is a small globular protein called Beta-2 Microglobulin. It links primarily with the Alpha-3 prime domain and is essential for MHC stability. The MHC ability to show a vast range of antigenic peptides for T cell recognition needs a compromise between broad specificity and high affinity. Both MHC class I and MHC class II show an exceptional structure while the peptide main chain is tightly bound and peptide side chains show less restrictive interactions. It is primarily the peptide side-chain contacts and conformational variability that ensures that the peptide-MHC complex presents an antigenically unique surface to T cell receptors. |
| Source / Host       | Mouse   |
| Immunogen           | Purified mouse LN cells (C57Bl/6 anti-BALB/c)   |
| Purification Method | Ion exchange chromatography   |
| Clone / IgG Subtype | clone NYRmH-2K; Mouse IgG2b   |
| Specificity         | Human 2K  |
| Formulation         | Lyophilized   |
| Reconstitution      | Please Note: Always centrifuge product briefly before opening vial. Reconstitute with 0.5 ml sterile H2O or PBS to give a 1 mg/ml concentration. Mix gently, wash the sides of the vial and wait 30-60 seconds before use. Protein concentration: 1 mg/ml (after reconstitution).   |
| Storage & Stability | Lyophilized: store at 4°C in a dry environment. After reconstitution, if not used within a month, aliquot and store at -20°C. Avoid repeated freeze / thaw cycles. Two years lyophilized, one month in solution at 4°C.   |
| Applications        | Cytotoxic and staining antibody. For staining, use 10 µl/10 <sup>6</sup> cells. Titer for cytotoxicity should be determined by the investigator. Antibody might also be suited for other applications not tested so far.  |

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