

## Recombinant Anti-Citrullinated epitope Antibody (V3S-0822-YC2838)

Cat. No.: V3S-0822-YC2838

### Summary

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| <b>Description</b>        | This product is a human monoclonal antibody provided by Creative Biolabs. The antibody is capable of recognizing Citrullinated epitope. It can be used for Citrullinated epitope detection in Enzyme-Linked Immunosorbent Assay (ELISA). The antibody is expressed in mammalian cells (293F or CHO) with antibody encoding genes and purified by affinity chromatography. Each lot of this antibody is quality control tested by SDS-PAGE and SEC-HPLC analysis. For highly sensitive assays, we recommend the ultra purified form of the product, which has a lower endotoxin limit than standard antibody, less than 1 EU/mg or even 0.1 EU/mg. |
| <b>Clonality</b>          | Monoclonal                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Host Species</b>       | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Target Species</b>     | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Isotype</b>            | IgG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Isotype Control</b>    | C34555                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Secondary Antibody</b> | C75370; C10513; C51635; C45530                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

### Property

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|---------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Expression Species</b> | HEK293F or CHO cell line                                                                                                                    |
| <b>Conjugation</b>        | Unconjugated, also available for Biotin, HRP, FITC and PE-labeled form.                                                                     |
| <b>Purity</b>             | >95%, determined by SDS-PAGE and SEC-HPLC                                                                                                   |
| <b>Endotoxin</b>          | <1 EU/mg, determined by LAL method                                                                                                          |
| <b>Purification</b>       | Protein A or G purified                                                                                                                     |
| <b>Sterility</b>          | 0.2 µM filtered                                                                                                                             |
| <b>Formulation</b>        | PBS, pH 7.4                                                                                                                                 |
| <b>Preservation</b>       | No preservatives                                                                                                                            |
| <b>Storage</b>            | Store at 4°C within one or two weeks. Store at -20°C for long term. Avoid repeated freeze/thaw cycles. Refer to the COA file for specifics. |

### Applications

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For lab research use only, not for diagnostic, therapeutic or any *in vivo* human use.

**Application** ELISA

## Target

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**Target** Citrullinated epitope

**Alternative Name** Citrullinated epitopes

**Introduction** Citrullinated epitopes are excellent targets for cancer vaccines. The post-translational conversion of arginine residues to citrulline by peptidylarginine deiminase (PAD) enzymes requires millimolar concentrations of calcium. This can occur during apoptosis leading to precipitation of proteins and stimulation of CD4 and antibody responses which are associated with autoimmune diseases such as rheumatoid arthritis (RA). Citrullination has also been shown to occur as a result of a degradation and recycling process called autophagy that is induced in stressed cells. As such autophagy and citrullination could be a method for alerting the immune response to any stressed cell including tumour cells. Peptide epitopes from these modified epitopes are presented on MHC-II and stimulate CD4 T cell responses. To this end, we have shown that stress-induced citrullinated peptide epitopes induce potent, cytotoxic CD4 T cell-mediated, anti-tumour responses that could constitute a new class of cancer treatment.

**Research Area** Cancer Research; Rare Disease

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