



## User's Manual

# Mouse ISG15 ELISA Kit



DEIABL523



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This product is for research use only and is not intended for diagnostic use.

For illustrative purposes only. To perform the assay the instructions for use provided with the kit have to be used.

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### Creative Diagnostics

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## PRODUCT INFORMATION

### Intended Use

The Mouse ISG15 ELISA Kit is used for the quantitative measurement of mouse ISG15 in cell conditioned media and serum.

### General Description

ISG15 (Interferon (IFN)-Stimulated Gene 15) is a ubiquitin-like protein containing two ubiquitin homology domains and becomes conjugated to a variety of proteins when cells are treated with type I interferon or lipopolysaccharide. Therefore this modification (so called, ISGylation) appear to be involved in type I interferon signal transduction. Unlike ubiquitylation, ISGylation does not drive protein degradation (regulated by K48-linked ubiquitin). ISG15 is expressed as a 165 amino acid precursor that is subsequently processed to expose the C-terminal sequence LRLRGG. Like ubiquitin, this C-terminal diglycine residue is adenylated and conjugated by a thiolester bond to sequential cystine residues on the E1-activating, E2-carrier and E3-ligase enzymes, before being transferred to lysine residues on target protein substrates. ISG15 can also be found extracellularly in an unconjugated form. Human lymphocytes and monocytes were reported to release free ISG15 following treatment with IFN- $\beta$ . More than 50 % of the total ISG15 could be detected in the culture medium after 24 hours following IFN stimulation. In addition, ISG15 is highly elevated and extensively conjugated to cellular proteins in many tumors and tumor cell lines. The increased levels of ISG15 in tumor cells were found to be associated with decreased levels of polyubiquitinated proteins.

### Reagents And Materials Provided

Microplate

10X Wash Buffer

Dilution Buffer

Human ISG15 Standard

HRP conjugated Detection Antibody

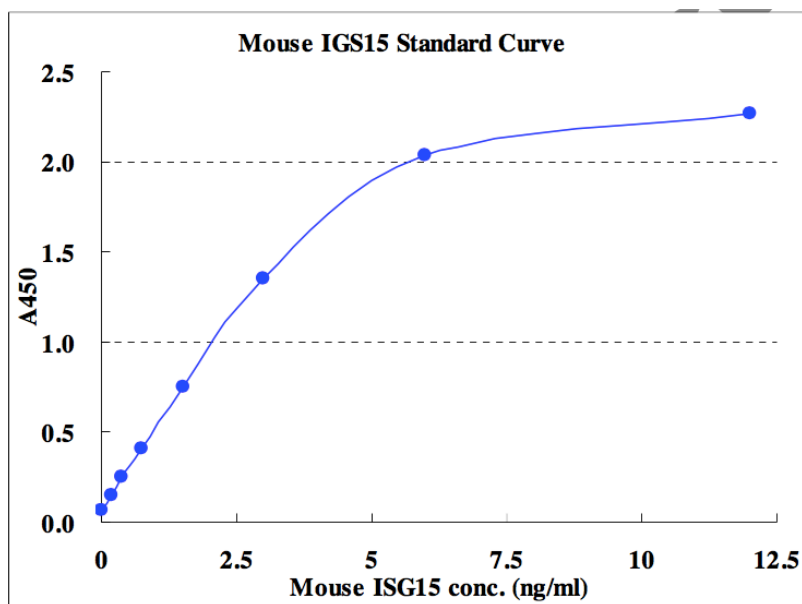
Substrate Reagent

Stop Solution

### Storage

- Upon receipt store all components at 4°C.
- Don't expose reagents to excessive light.

### Typical Standard Curve



## Precision

Intra-assay (Within-Run, n=16) CV=2.6-3.9 %

Inter-assay (Run-to-Run, n=5) CV=5.0-7.7 %

## Sensitivity

The limit of detection (defined as such a concentration of mouse ISG15 giving absorbance higher than mean absorbance of blank\* plus three standard deviations of the absorbance of blank: A blank + 3SD blank) is better than 48.3 pg/ml of sample.