



## Product Specification Sheet

### Mouse Monoclonal Anti-Rabies Virus IgG-FITC (DFA Reagent II)

Cat. # RBV15-FITC      Mouse Monoclonal Anti-Rabies Virus IgG-FITC Conjugate (mix of 2 clones)      **SIZE:** 1 ml

The rabies virus is a member of the Lyssavirus genus, which have helical symmetry, so their infectious particles are approximately cylindrical in shape. They are characterized by an extremely broad host spectrum ranging from plants to insects and mammals; human-infecting viruses more commonly have cubic symmetry and take shapes approximating regular polyhedron. The virus has a bullet like shape with a length of about 180 nm and a cross-sectional diameter of about 75 nm. One end is rounded or conical and the other end is planar or concave. The lipoprotein envelope carries knob-like spikes composed of Glycoprotein G. Spikes do not cover the planar end of the virion (virus particle). Beneath the envelope is the membrane or matrix (M) protein layer which may be invaginated at the planar end. The core of the virion consists of helically arranged ribonucleoprotein

Rabies is a disease that causes acute encephalitis (inflammation of the brain) in warm-blooded animals. It is zoonotic (i.e., transmitted by animals), most commonly by a bite from an infected animal but occasionally by other forms of contact. Rabies is almost invariably fatal if post-exposure prophylaxis is not administered prior to the onset of severe symptoms. Early-stage symptoms of rabies are malaise, headache and fever, progressing to acute pain, violent movements, uncontrolled excitement, depression, and hydrophobia. Finally, the patient may experience periods of mania and lethargy, eventually leading to coma. The primary cause of death is usually respiratory insufficiency. Worldwide, the vast majority of human rabies cases (approximately 97%) come from dog bites. In the United States, however, animal control and vaccination programs have effectively eliminated domestic dogs as reservoirs of rabies. In several countries, including the United Kingdom, Australia and Japan, the virus has been eradicated entirely.

Rapid and accurate laboratory diagnosis of rabies in humans and other animals are essential for timely administration of post exposure prophylaxis. Within a few hours, a diagnostic laboratory can determine whether or not an animal is rabid and inform the responsible medical personnel. The laboratory results may save a patient from unnecessary physical and psychological trauma, and financial burdens, if the animal is not rabid. The nature of rabies disease dictates that laboratory tests be standardized, rapid, sensitive, specific, economical, and reliable. The standard test for rabies testing is dFA. All rabies laboratories in the United States perform this test (post-mortem) on animals suspected of having rabies.

#### **Source of Antigen and Antibodies**

**Antigen:** Purified rabies (ERA strain) ribonucleoprotein (RNP).

**Antibody host:** Mouse IgG2a (clones 103.7 & 502.2)

**Label:** Purified rabies IgG2a-coupled to FITC.

**Buffer:** PBS, 0.1% BSA, and 0.05% azide as preservative.

#### **Storage**

**Short-term:** unopened, undiluted liquid vials at -20OC and powder at 4oC or -20oC..

**Long-term:** at -20C or below in suitable aliquots after reconstitution. Do not freeze and thaw and store working, diluted solutions.

**Stability:** 6-12 months at -20oC or below.

**Shipping:** 4oC for solutions and room temp for powder

#### **Recommended Usage**

Rabies DFA Reagent II is intended for the detection of rabies antigens in culture and in acetone-fixed brain and submaxillary tissues of infected animals. Thus the assay could be used as an aid in the indirect diagnosis of human rabies virus infection. All specimens that are negative or indeterminate by DFA testing should be further tested by cell culture or animal inoculation methods.

**Immunofluorescence:** The Working Dilution must be determined by titration of the Reagent by the user.

FITC (excitation peak = 490nm, emission peak = 515nm).

Rabies protein in infected cells will fluoresce bright apple-green infected mouse brain.

Relative sensitivity = 100% (36/36) [95% confidence interval = 0.903 to 1.00]

Relative specificity = 100% (405/405) [95% confidence interval = 0.991 to 1.00]

#RBV15-FITC reagent can be use is all kinds of animals (bat, cow, coyote, deer, dog, fox, goat, hamster, horse, opossum, mouse, pig, rabbits, raccoon, rat, sheep, skunk, squirrel etc).

\*This product is for In vitro research use only.

#### **Related material available from ADI**

600-010-DRV	Dog Anti-Rabies Virus IgG ELISA Kit
600-020-HRV	Human Anti-Rabies Virus IgG ELISA Kit,
600-030-MRG	Mouse Anti-Rabies Virus IgG ELISA Kit,
600-040-RRG	Rabbit Anti-Rabies Virus IgG ELISA Kit,
600-045-RRM	Rabbit Anti-Rabies Virus IgM ELISA Kit,
600-050-HRG	Horse Anti-Rabies Virus IgG ELISA Kit,
600-060-CRG	Canine rabies virus antibody ELISA kit
600-070-CRG	Monkey Rabies Virus antibody ELISA

AE-200130-2	Swine/Porcine Pseudorabies Antibody ELISA
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AE-200135-2	Swine/Porcine Pseudorabies Virus IgE Antibody Distinguishing kit
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RBV11-M	Mouse monoclonal Anti-Rabies Virus IgG, aff pure
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RBV13-S	Anti-Rabies Virus antiserum
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RBV14-M	Mouse monoclonal Anti-Rabies Virus glycoprotein IgG, aff pure
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