ALPHA DIAGNOSTIC INTERNATIONAL

Product Specification Sheet

# Recombinant Mouse Adenovirus Hexon Protein

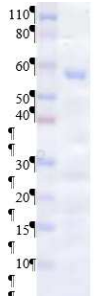
MADV15-R-10 Recombinant (E.coli) Mouse Adenovirus (MADV) Hxn Protein (his-tag, >95%) Size: 10 ug

Adenoviruses (Ads) are important human pathogens infecting a wide range of tissues, including the respiratory tract, the gastrointestinal tract and the conjunctiva. Adenovirus is associated with acute pneumoniae in children in developing countries which is a major cause of illness and death. Nonhuman Ad serotypes are ubiquitous in many vertebrate species and provide an alternate approach for the study of Ad pathogenesis. Mouse adenoviruses (MAV) are nonenveloped DNA viruses of the Mastadenovirus family. There are two strains of mouse adenovirus: Mouse adenovirus type 1 (MAV-1) and mouse adenovirus type 2 (MAV-2). MAV-1 first identified in 1960, is a well-characterized, nonhuman Ad that has been successfully used in vivo for pathogenesis studies and has also been designated as FL, MAV-1 and MAV-FL. MAV-1 produces a lethal disease in newborn or suckling mice characterized by infectious virus and viral lesions in multiple organs. MAV-1 is transmitted through contact with infected urine and MAV-2 also known as strain K87 is shed in feces; the virus is transmitted via the fecal-oral route. .

MAV-1 has been more extensively studied than MAV-2. MAV-1 is similar to human adenovirus and other members of the adenovirus family in both genome and structure. The non-enveloped, double stranded DNA genome of MAV-1 is 30,944 bp, similar to the human adenoviruses, which range from 34,125 bp (Ad12) to 36,001 bp (Ad1). MAV-1 shares many open reading frames with Ad2 and Ad5. The early regions E1A, E1B, E2, E3, and E4 are the first regions transcribed and encode proteins involved in activating transcription of other viral regions and altering the cellular environment to promote viral production. The E1A proteins induce mitogenic activity in the host cell and stimulate expression of other viral genes. The E2 proteins mediate viral DNA replication, while E3 and E4 proteins alter host immune responses and cell signaling, respectively. Activation of the major late promoter (MLP) following the start of virus DNA synthesis allows expression of the late genes encoding primarily virion structural proteins. The late regions (L1–L5) are transcribed from an alternatively spliced transcript. MAV-1 E3 has no significant homology between MAV-1 sequence and any other protein.

Diagnosis of MAV infections in mice or rats can be performed by MFIA/ELISA and IFA. MAV infections can be confirmed by the detection of circulating antibodies. Virus can be amplified from infected tissues by PCR or cultivated in permissive cell lines. The capability of MAV-1 to infect and express naturally in human endothelial cells allows for the possible use of this virus in treatment of these cells in humans, namely for heart disease and cancer. MAV-1 infection will allow the study of specific host inflammatory responses and specific viral genes involved in the pathogenesis of adenovirus-induced respiratory infection.

**Source of Antigen**




Recombinant Mouse adenovirus hexon protein was expressed in E.coli as a his-tag fusion protein (533 aa, >95%, ~58.2 kda). Purified protein is supplied in 15mM Tris-HCl, 0.1mM EDTA, 1mM β-mercaptoethanol, 0.05M NaCl, 2M Urea and 0.05M Imidazole (see lot sp. Conc. on the vial)

**Endotoxin level**: < 1.0 EU per µg protein as determined by the LAL method.

It is suitable for ELISA, Western or other applications where native protein is required. Do not freeze, thaw, or heat repeatedly.

**Storage**
**Short-term:** unopened, undiluted vials for less than a week at 4oC.

**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**
ELISA, Western blot

Cellular Activity, Histochemistry & Immunofluorescence

**Specificity:**
Mouse adenovirus (MADV, 533aa, protein accession # NP_015547.1) is conserved in Murine Mastadenovirus (100%), Bovine adenovirus1 (67%), human adenovirus52 (67%) and Canine adenovirus2 (67%).

**General References**: Weber JM, Cai F, Murali R, Burnett RM (1994) J. Gen. Virol. 75, 141-147.

*This product is for In vitro research use only.

## Related material available from ADI

Catalog# Prod Description

950-100-AHA Human Anti-Human Adenovirus (hAd5 hxn) IgA ELISA kit, 96 tests, Quantitative
950-110-AHG Human Anti-Human Adenovirus (hAd5 hxn) IgG ELISA kit, 96 tests, Quantitative
950-120-AHM Human Anti-Human Adenovirus (hAd5 hxn) IgM ELISA kit, 96 tests, Quantitative

HCLS-17010 293 Cell Slide (Human (embryonal) kidney transformed by sheared human adenovirus 5 (Ad 5) DNA) (5 slides/pk)

950-130-AMG Mouse Anti-Human Adenovirus (hAd5 hxn) IgG ELISA kit, 96 tests, Quantitative
950-140-AMM Mouse Anti-Human Adenovirus (hAd5 hxn) IgM ELISA kit, 96 tests, Quantitative

ADV11-A Anti-Adenovirus type 2, hexon IgG (reacts with 1-7a, 8, 31, 40-41)
ADV11-BTN Anti-Adenovirus type 2, hexon IgG-Biotin conjugate
ADV11-FITC Anti-Adenovirus type 2, hexon IgG-FITC conjugate
ADV11-HRP Anti-Adenovirus type 2, hexon IgG-HRP conjugate

ADV12-M Monoclonal Anti-Adenovirus (many istoypes) hexon IgG

ADV12-FITC Monoclonal Anti-Adenovirus (many isotypes) IgG-FITC conjugate

ADV13-M Monoclonal Anti-Adenovirus type 40 IgG, aff pure
ADV14-M Monoclonal Anti-Adenovirus type 41 IgG, aff pure
ADV15-M Monoclonal Anti-Adenovirus type 40/41 IgG, aff pure
ADV17-M Monoclonal Anti-Adenovirus type (pan, reacts with all human serotypes) IgG, aff pure

MADV15-R-10-MADV-Hxn-Protein 151211AC

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