

Datasheet for ABIN2786784

**anti-Plakophilin 2 antibody (N-Term)**[Go to Product page](#)**1** Validation**2** Images

## Overview

Quantity:	100 µL
Target:	Plakophilin 2 (PKP2)
Binding Specificity:	N-Term
Reactivity:	Human, Rat, Mouse, Cow, Dog, Horse
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This Plakophilin 2 antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (IHC)

## Product Details

Immunogen:	The immunogen is a synthetic peptide directed towards the N terminal region of human PKP2
Sequence:	HPLRRLEISP DSSPERAHYT HSDYQYSQRS QAGHTLHHQE SRRAALLVPP
Predicted Reactivity:	Cow: 77%, Dog: 79%, Horse: 86%, Human: 100%, Mouse: 86%, Rat: 77%
Characteristics:	This is a rabbit polyclonal antibody against PKP2. It was validated on Western Blot using a cell lysate as a positive control.
Purification:	Affinity Purified

## Target Details

Target:	Plakophilin 2 (PKP2)
Alternative Name:	PKP2 ( <a href="#">PKP2 Products</a> )

## Target Details

Background:	<p>This gene encodes a member of the arm-repeat (armadillo) and plakophilin gene families. Plakophilin proteins contain numerous armadillo repeats, localize to cell desmosomes and nuclei, and participate in linking cadherins to intermediate filaments in the</p> <p>Alias Symbols: ARVD9</p> <p>Protein Interaction Partner: NDEL1, MTUS2, CEP250, DROSHA, BMI1, EED, RNF2, YWHAB, CLK2, YWHAЕ, WHSC1, UBC, SMAD9, YWHAQ, CUL3, MARK3, POLR3A, YWHAG, PKP2, JUP, KRT18, KRT5, DSG2, DSG1, DSP, DSC2, DSC1, CTNNB1, GTF2B, SFN,</p> <p>Protein Size: 837</p>
Molecular Weight:	93 kDa
Gene ID:	5318
NCBI Accession:	<a href="#">NM_001005242</a> , <a href="#">NP_001005242</a>
UniProt:	<a href="#">A0AV37</a>
Pathways:	<a href="#">Cell-Cell Junction Organization</a> , <a href="#">SARS-CoV-2 Protein Interactome</a> , <a href="#">The Global Phosphorylation Landscape of SARS-CoV-2 Infection</a>

## Application Details

Application Notes:	Optimal working dilutions should be determined experimentally by the investigator.
Comment:	Antigen size: 837 AA
Restrictions:	For Research Use only

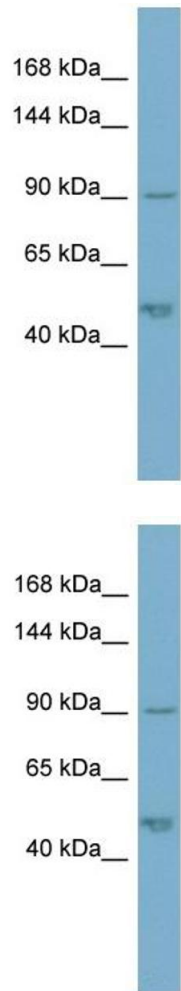
## Handling

Format:	Liquid
Concentration:	Lot specific
Buffer:	Liquid. Purified antibody supplied in 1x PBS buffer with 0.09 % (w/v) sodium azide and 2 % sucrose.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-20 °C

Handling

Storage Comment: For short term use, store at 2-8°C up to 1 week. For long term storage, store at -20°C in small aliquots to prevent freeze-thaw cycles.

Images



Western Blotting

**Image 1. WB Suggested Anti-PKP2 Antibody Titration:** 0.2-1 ug/ml  
**ELISA Titer:** 1:312500  
**Positive Control:** COLO205 cell lysate

Western Blotting

**Image 2. WB Suggested Anti-PKP2**  
Antibody Titration: 0.2-1 µg/mL ELISA Titer: 1:12500  
Positive Control: COLO205 cell lysate  
PKP2 is supported by BioGPS gene expression data to be expressed in COLO205



## Successfully validated (Western Blotting (WB))

by [Gencardio \(IDIBGI\)](#)

Report Number: 103654

Date: Mar 13 2019

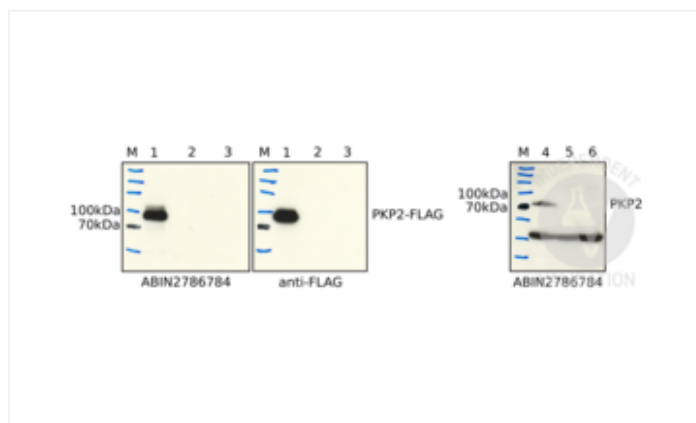
Target:	PKP2
Lot Number:	QC27639-43357
Method validated:	Western Blotting (WB)
Positive Control:	<p>HL-1 cell extracts (from AT-1 mouse atrial cardiomyocyte tumor lineage)</p> <p>Extracts from HEK293 cells transfected with human PKP2-FLAG expressing plasmid</p> <p>Extract of mouse heart tissue (endogenous PKP2 expected molecular weight 88KDa)</p> <p>Extract of human heart tissue (endogenous PKP2 expected molecular weight 91KDa)</p>
Negative Control:	Extracts from untransfected HEK293 cells
Notes:	<p>ABIN2786784 specifically recognizes PKP2 in cell extracts from HEK-293 overexpressing human PKP2 protein and endogenous PKP2 in human heart tissue but not endogenous mouse PKP2 neither in HL-1 cells nor mouse tissue.</p>
Primary Antibody:	ABIN2786784
Secondary Antibody:	mouse anti-FLAG-tag antibody (Sigma, monoclonal anti-flag, F316, lot SLBT7654)
Protocol:	<ul style="list-style-type: none"> <li>Grow HL-1 cells in Claycomb medium (Sigma, 51800C, lot SLBX8700) supplemented with 10% FBS (Gibco, 10270-106, lot 42G5178K), 1% Penicillin-Streptomycin (Sigma, P4333, lot 048M4874V) and 1% Glutamax (Gibco, 35050-061, 2037045), at 37°C and 5% CO<sub>2</sub> in 2ml on a 6 well plate to 95% confluency.</li> <li>Grow HEK293 cells in DMEM/High Modified medium (GE Life Science, SH30285.01, lot AC14565263) supplemented with 10% FBS, 1% Penicillin-Streptomycin and 1% Glutamax (Gibco, 35050-061, 2037045), at 37°C and 5% CO<sub>2</sub> in 2ml on a 6 well plate to 95% confluency.</li> <li>Transfect HEK293 cells with PKP2a plasmid (p915 PKP2a-pFLAG-cmv5a; provided by Dr. Green KJ) using Lipofectamin 2000 (Invitrogen, 11668-019, lot 2022713) following the manufacturer's instructions.</li> <li>Lyse approximately <math>1.2 \times 10^6</math> cells per well in 200µl 1% SDS (Sigma, 75746, lot STBG4187V).</li> <li>Homogenate whole heart of transgenic and wt heart mouse tissue with M-Per reagent (Thermo, 78501, lot NC168900) and mechanical disaggregation using a Dounce homogenizer.</li> <li>Incubate for the lysates from 15min at 95°C.</li> <li>Vortex for 15min.</li> <li>Determine total protein content of the lysates using Pierce BCA Protein Assay Kit (Thermo)</li> </ul>

Scientific, 23227, lot TC263613).

- Denature 15µg (HEK293 cell lysates), 106µg (HL-1 cell lysates), and 100µg (mouse heart tissue lysates) of total protein for 5min at 95°C in 45µl using 6x Laemmli SDS sample buffer and subsequently separate them on a 8% acrylamide gel in an electrophoresis chamber for 30min at 80V and 1h at 120V.
- Transfer proteins onto Amersham Hybond P 0.45 PVDF blotting membrane (GE Life Science, 10600023, lot A16954274) for 2h at 80V.
- Block the membrane with 5% NFM in PBST for 1h at RT.
- Incubation with primary
  - rabbit anti-Plakophilin 2 (PKP2) (N-Term) antibody (antibodies-online, ABIN2786784, lot QC27639-43357) diluted 1:800 in 5% NFM in PBS ON at 4°C or
  - mouse anti-FLAG-tag antibody (Sigma, monoclonal anti-flag, F316, lot SLBT7654) diluted 1:x in 5% NFM in PBS ON at 4°C.
- Wash membrane 2x for 5' with PBST and 2x for 5min with PBS.
- Block the membrane with 5% NFM in PBST for 1h at RT.
- Incubation with secondary anti-rabbit (Jackson ImmunoResearch, 111-035-003, lot # 135002) diluted 1:10000 in 5% NFM in PBS for 1h at RT.
- Wash membrane 2x for 5min with PBST and 2x for 5min with PBS.
- Reveal protein bands using Perce ECL Western (Thermo Scientific, 32106, TE265714) with Amersham Hyperfilm ECL (GE Healthcare Limited, 28906835, 65901).

Experimental Notes: HEK293 cells with no endogenous PKP2 expression have been transfected with human FLAG-tagged PKP2 as a positive control. HL-1 cells express endogenous mouse PKP2.

## Image for Validation report #103654



### Validation image no. 1 for anti-Plakophilin 2 (PKP2) (N-Term) antibody (ABIN2786784)

Western blot of lysates from HEK293 cells transfected with FLAG-tagged PKP2 (1), non-transfected HEK293 cells (2), non-transfected HL1 cells (3) HEK293 cells transfected with ABIN2786784 or an anti-FLAG tag antibody. In addition, lysates from human (4) and mouse heart tissue (5, 6) were incubated with ABIN2786784.