TRAP1 (human), (recombinant) (His-tag)

The Hsp90 family of heat shock proteins represents one of the most abundantly expressed and highly conserved families of cellular chaperones whose expression can be upregulated under conditions of cellular stress. It includes cytoplasmic (Hsp90-alpha/beta), ER (Grp94) and mitochondrial (TRAP1) localized members. Hsp90 is structurally composed of an N-terminal ATP binding domain, a medial substrate-binding region, and a C-terminal dimerization motif. Hsp90 dimers function in cooperation with cochaperones to stabilize a multitude of client proteins substrates. TRAP1 (aka Hsp75) was originally identified as a chaperone binding partner for retinoblastoma protein. TRAP1 was later found by immunofluorescence to be localized to the mitochondria. TRAP1 is significantly more active as an ATPase due in part to the lack of regulatory elements in the C-terminus, but retains the ability to dimerize. However, it does not form stable complexes with typical cochaperones of Hsp90 like p23 and HOP4. TRAP1 has been identified as a protective element for cell survival, and has been suggested as a target for anti-cancer therapeutics.

Citations: 5 View Online »

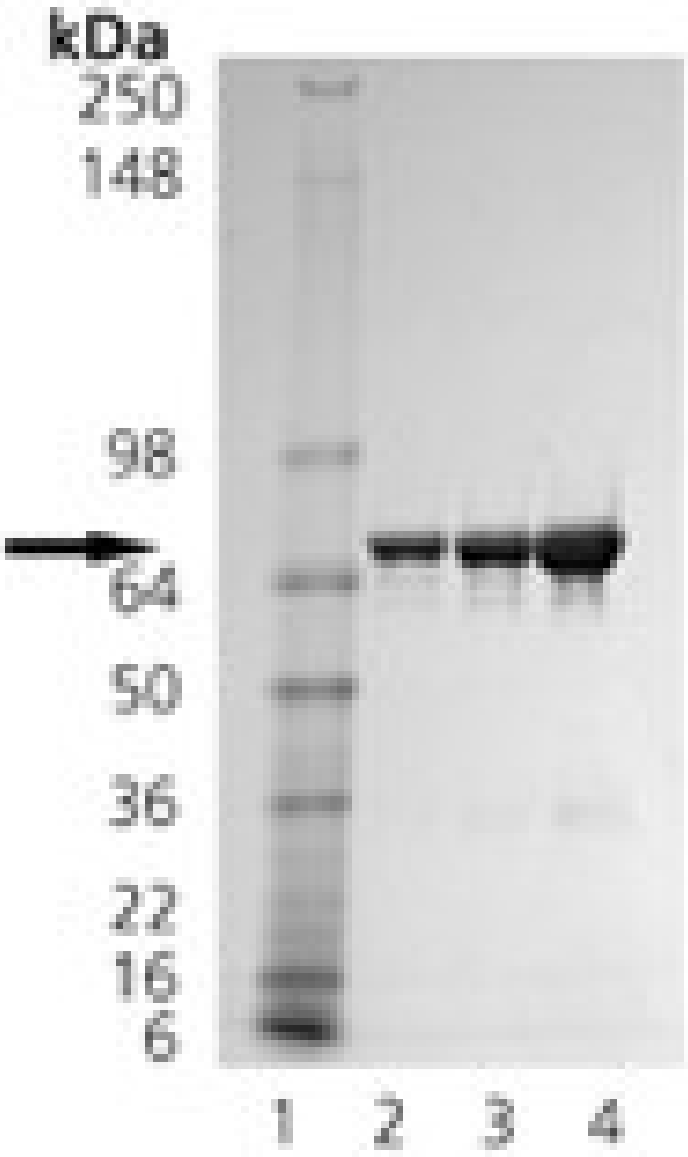
Ordering Information

Order Online »

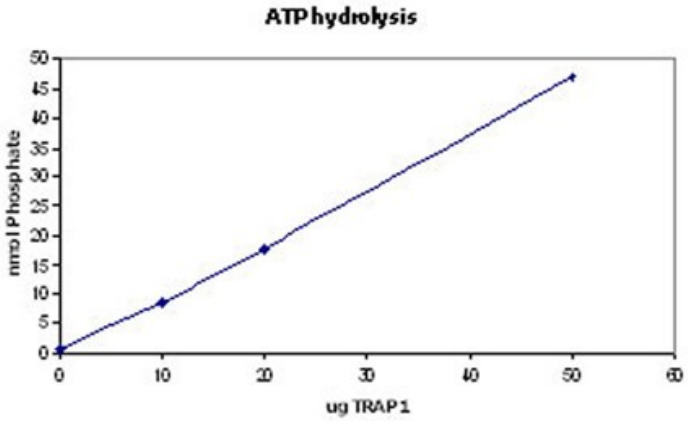
ADI-SPP-848-050	50µg
ADI-SPP-848-200	200µg

Manuals, SDS & CofA

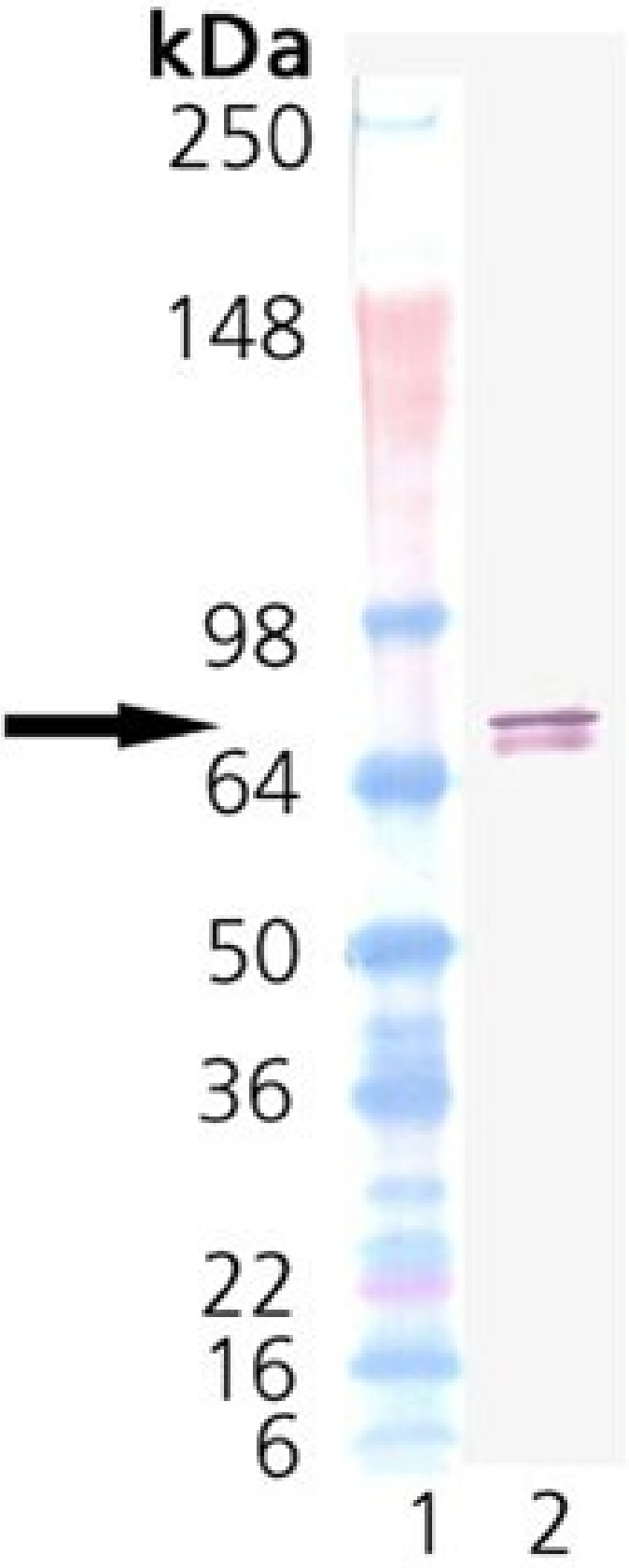
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SDS-PAGE analysis: Lane 1: MW marker, Lane 2: 1µg, Lane 3: 2µg, Lane 4: 5µg TRAP1 protein



ATPase Assay: ATP hydrolysis after 1 hour at 37^{O}C detected by malachite green. Quantities determined by comparison to potassium phosphate standard. Approximate activity is 1.2 nmol PO_4/nmol TRAP1/min.



Western Blot analysis: Lane 1: MWM, Lane 2: TRAP1, probed with TRAP1 mAb.

Handling & Storage

Long Term Storage	-80°C
Shipping	Dry Ice

Regulatory Status RUO - Research Use Only

Product Details

Alternative Name	HSP75, Mitochondrial HSP90, MtHSP90
Application Notes	Western blot control.
Formulation	Liquid. In 50mM TRIS, pH 7.5, containing 150mM sodium chloride, 1mM DTT, and 1mM EDTA.
MW	~72kDa
Purity	≥95% (SDS-PAGE; Western blot)
Purity Detail	Purified by multi-step chromatography.
Source	Produced in *E. coli*. Human TRAP1 (aa 60-704) is fused at the N-terminus to a His-tag.
UniProt ID	Q12931

Last modified: July 1, 2024

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