



Human X-ray repair cross-complementing protein 5/6 (Ku70/80)

Origin:	Recombinant	Cat. No.:	41A180
Tag:	N-terminal 6xHis	Size:	0.1 mg
Source:	<i>Spodoptera frugiperda</i> Sf9	Purity:	>90%
Other Names:	Ku70/80, Ku70 80, Ku	Species:	Human

Description

Heterodimer expressed in insect Sf9 cells containing a 633 AA (Mw: 72.8 KDa) Ku70 and a 743 AA (Mw: 84.1 KDa) Ku80.

Ku70 has N-terminal 6xHis-tag and TEV cleavage site with 25 extra AA (highlighted), while Ku80 has C-terminal Flag-tag with 21 extra AA (highlighted).

Recombinant antigen for research use or manufacturing only.

Introduction to the Molecule

The Ku autoantigen is a heterodimer of 70kDa (p70) and 80kDa (p80) proteins. Anti-Ku antibodies are reported in various connective tissue diseases and the Ku complex can be responsible for a very strong autoimmune answer in autoimmune disease.

Immunological Function

As an autoantigen, Ku70/80 binds with IgG-type human auto-antibodies.

Amino Acid Sequence

Ku70:

MSYYHHHHHHHDYDIPTTENLYFQGASGWESYYKTEGDEEAEEEEQEENLEASGDYKYSGR
 DSLIFLVDASKAMFESQSEDELTPFDMSIQCIQSVYISKIISDRDLLAVVFGTEKDKNVNFK
 NIYVLQELDNPGAKRILELDQFKGQQGQKRFQDMMGHGSDYSLSEVLWVCANLFSVDVQFKMS
 HKRIMLFTNEDNPHGNDSAKASRARTKAGDLRDTGIFLDMHLKPKGGFDISLFYRDIISIAEDE
 DLRVHFEESKLEDLLRKVRAKETRKALSRLKLNKDIVISVGIYNLVQKALKPPPIKLYRETN
 EPVKTTRTFNTSTGGLLPSDTKRSQIYGSRQIILEKEETEELKRFDDPGLMLMGFKPLVLLKKH
 HYLRPSLFVYPEESLVIGSSTLFSALLIKCLEKEVAALCRYTPRRNIPPYFVALVPQEEELDDQKIQ
 VTPPGFQLVFLPFADDKRKMPFTEKIMATPEQVGKMKAVEKLRFTYRSDSFENPVLQQHFRNLE
 ALALDLMEPEQAVDLTLPKVEAMNKRSLGSLVDEFKELVPPDYNPEGKVTKRKHNEGSGSKRP
 KVEYSEELKTHISKGTLGKFTVPMLEACRAYGLKSGLKKQELLEALTKHFQD

Ku80:

MVRSGNKAAVVLCMDVGFTMSNSIPGIESPFQAKKVVITMFVQRQVFAENKDEIALVLFVGTGDT
 DNPLSGGDQYQNITVHRHMLPDFDLLEDIESKIQPGSQQADFLDALIVSMDVIQHETIGKKFE
 KRHIEIFTDLSSRFKSKQLDIIHSLKKCDISLQFFLPFSLGKEDGSGDRGDGPFRLGGHGSPFL
 KGITEQQKEGLEIVKMVMISLEGEDGLDEIYSFSESLRKLKCVFKKIERHSIHWPCRLTIGSNLSIR
 IAAYKSILQERVKKTWTVDVAKTLKKEDIQKETVYCLNDDDETEVLKEDIQGFYRGSIVPFSK
 VDEEQMKYKSEKCFVSLGFCSSQVQRRFFMGNQVLKVFAARDDEAAVALSLSLIHALDDLD





MVAIVRYAYDKRANPQVGVAFFPHIKHNYECLVYVQLPFMEDLRQYMFSSLKNSKKYAPTEAQLN
AVDALIDSM SLAKKDEKDTLEDLFPTTKIPNPRFQRLFQCLLHRALHPREPLPPIQQHIWNMLN
PPAEVTTKSQIPLSKIKTLFPLIEAKKKDQVTAQEIFQDNHEDGPTAKKLEQGGAHFSVSSLA
EGSVTSVGSVNPAENFRVLVKQKKASFEEASNQLINHIEQFLDTNETPYFMKSIDCIRAFREEAI
KFSEEQRFNFKALQEKEIKQLNHFWEIVVQDGITLITKEEASGSSVTAEAAKFLAPKDKPS
GDTAAVFEEG**GDVDDLLDMISYYDYKDDDDK**

Applications

Standard ELISA test, line/dot assay and microarray assay with positive/negative sera panels.

Formulation

Liquid in storage buffer (50mM Tris, 300-500mM NaCl, 10% Glycerol, Protease inhibitor, pH8.0).

Storage

Store at -80°C. Avoid repeated freezing /thawing cycles.

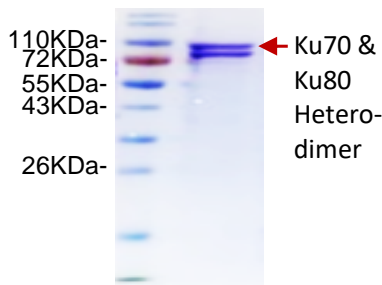
Quality Control Test

BCA to determine quantity of the protein.

SDS PAGE to determine purity of the protein.

Immunodot analysis to determine functionality of protein.

SDS-PAGE Gel



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