

MOUSE HMW AND TOTAL ADIPONECTIN ELISA

47-ADPMS-E01

In recent years, it has become increasingly accepted that high molecular weight (HMW) adiponectin (ADP) or the HMW/total ADP ratio (HMWR) are more informative than the measurement of total ADP alone, especially as it relates to insulin resistance. Established methods for measuring rodent HMW adiponectin are labor-intensive and time consuming. The lack of a simplified method for quantification of ADP multimers paved the way for the development of the Mouse Total and HMW ADP ELISA (Sekisui/ALPCO), which enables simultaneous measurement of Total and HMW ADP following protease pretreatment of sample.

BENEFITS

- **Confidence:** HMW and total ADP are measured together so accurate HMWR is assured
- **Simple Sample Pre-treatment Procedure:**
No gel filtration or chromatography
- User-friendly manual ELISA format

CHARACTERISTICS

Sample Type:	Serum, EDTA-plasma
Sample Size:	10 µl total, 10 µl HMW
Size:	96 wells
Range:	0.125 – 8 ng/ml
Sensitivity:	0.032 ng/ml
Incubation Time:	2 hours 40 minutes

SUGGESTED READING

Ebinuma, H, M Masanao. Protease-based ELISA for selective quantification of mouse high-molecular-weight adiponectin. Clinica Chimica Acta 2009; 401: 181-183.

RELATED BIOMARKERS

GLP-1
Insulin (Mouse)
C-peptide (Mouse)

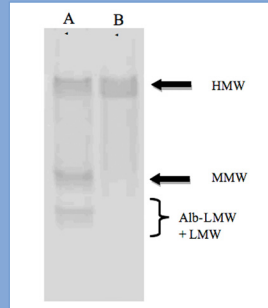
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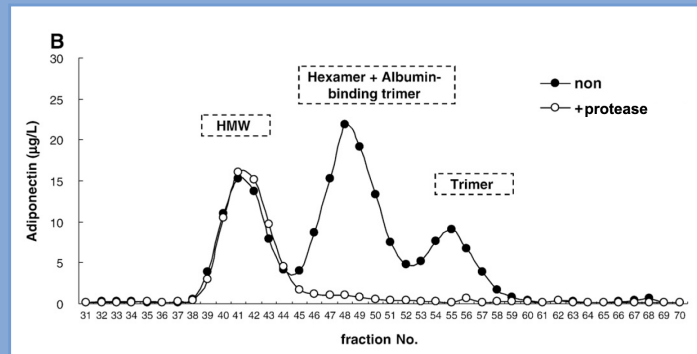
PROTEASE DIGESTION SPECIFICITY:

1. Western Blot analysis: all forms of adiponectin were stained in absence of protease treatment (A), while only the HMW form is detected after digestion by kit protease (B).



1.

2. Mouse serum treated with protease according to the method employed in the kit and fractionated by gel filtration chromatography was analyzed in the ELISA. Signal was only observed for fractions associated with HMW-Adiponectin.

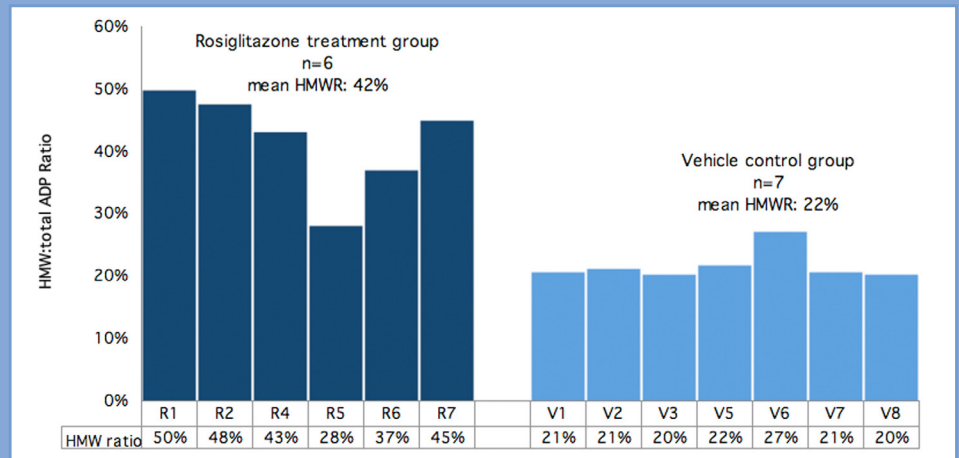


2.

Figure adapted from: Ebinuma et al., CCA 2009; 401; 181-3

HMWR SAMPLE DISTRIBUTION:

Six-week old db/db mice on a standard chow diet were treated with 10 mg/kg rosiglitazone or vehicle for four weeks. The HMWR for rosiglitazone-treated group is significantly higher than for the vehicle control group ($p=0.001$).



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