



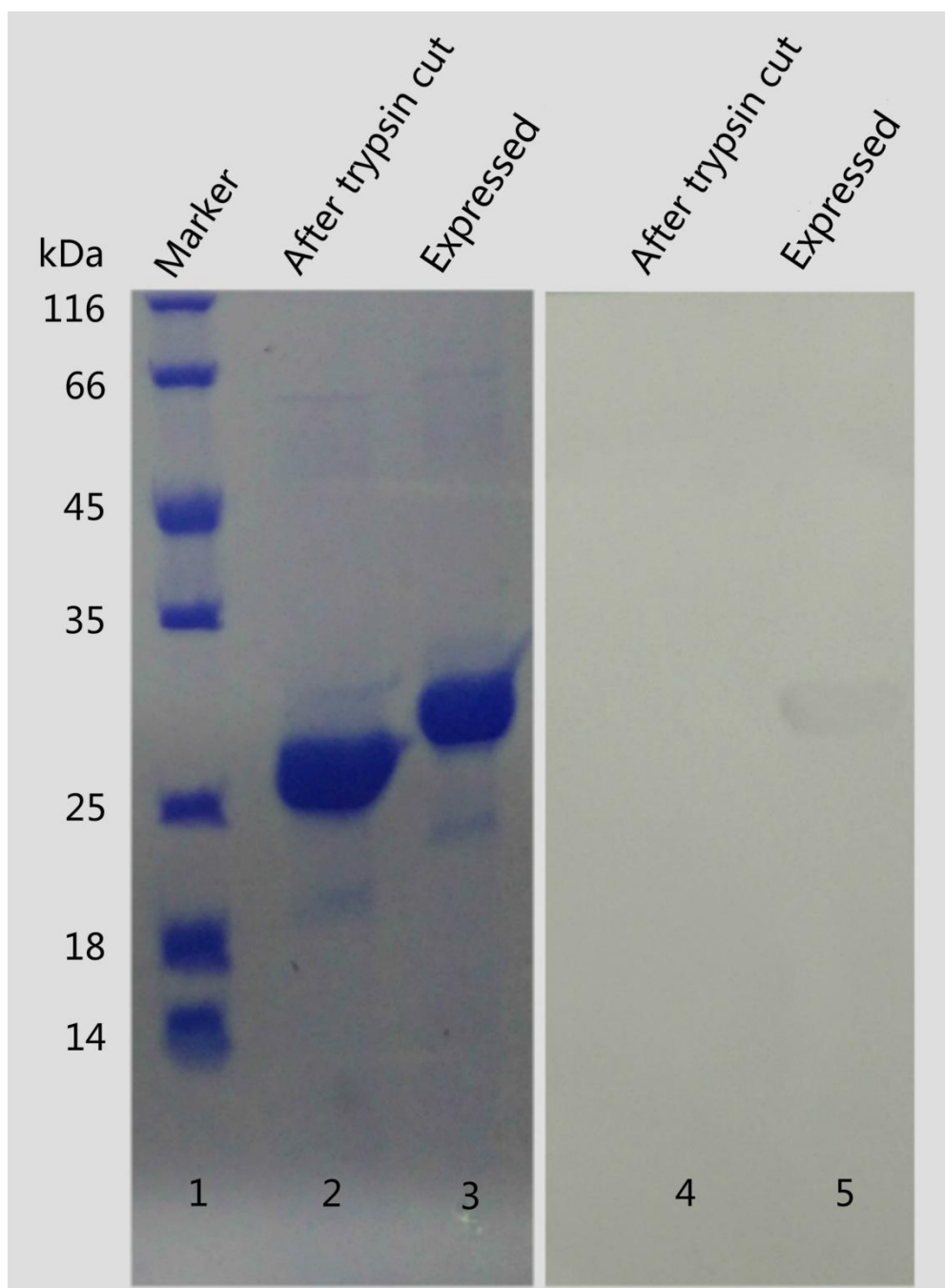
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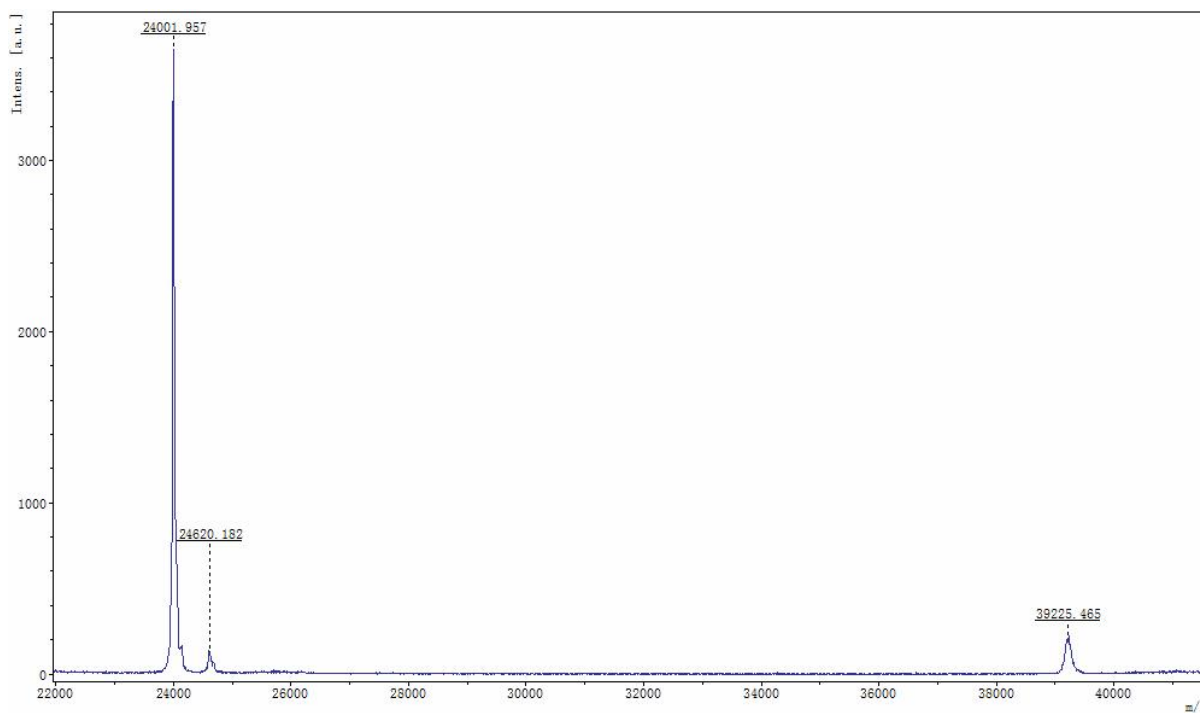
**Supporting information for article:**

**DNA-binding domain of myelin gene regulatory factor: purification,  
crystallization and X-ray analysis**

**WenYu Wu, Xiangkai Zhen and Ning Shi**



**Supplementary Figure S1.** The result of Western blot with an anti-His mAb shows that the N-terminal His tag of expressed MyRF DBD is removed by trypsin. Left: the proteins were analyzed by 15% SDS-PAGE. Right: the Western blot result of the proteins on the left SDS-PAGE. Lane 1: protein marker. Lane 2: expressed MyRF DBD after treated by trypsin-limited proteolysis (using for crystallization). Lane 3: 300 imidazole elute from Ni column that contains the expressed and purified auto-cleaved product of MRF DBD. Lanes 4: the WD of lane2. Lanes 5: the WD of lane3.



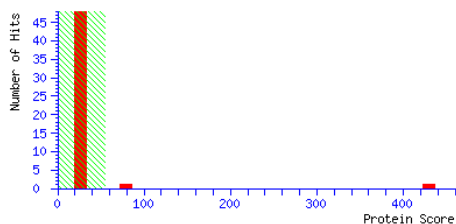
(a)

**MASCOT** **SCIENCE** Mascot Search Results

User :  
 Email :  
 Search title : Project: zxw, Spot Set: zxw\201703, Label: F11, Spot Id: 2213967, Peak List Id: 2713045, MS Job Run Id: 67165  
 MS data file : C:\Users\Administrator\Desktop\MGF.txt  
 Database : SPMouse1503 (16711 sequences; 9387744 residues)  
 Timestamp : 6 Apr 2017 at 05:57:35 GMT  
 Warning : A Peptide summary report will usually give a much clearer picture of MS/MS search results.  
 Top Score : 429 for **sp|Q3UR85|MRP\_MOUSE**, Myelin regulatory factor OS=Mus musculus GN=Myrf PE=1 SV=2

**Mascot Score Histogram**

Protein score is  $-10 \cdot \log(P)$ , where P is the probability that the observed match is a random event.  
 Protein scores greater than 55 are significant ( $p < 0.05$ ).  
 Protein scores are derived from ions scores as a non-probabilistic basis for ranking protein hits.



**Protein Summary Report**

Format As: Protein Summary (deprecated) [Help](#)

Significance threshold  $p <$  0.05 Max. number of hits 20

Re-Search All Search Unmatched

**Index**

Accession	Mass	Score	Description
1. <a href="#">sp Q3UR85 MRP_MOUSE</a>	123210	429	Myelin regulatory factor OS=Mus musculus GN=Myrf PE=1 SV=2
2. <a href="#">sp Q3UN70 MRFL_MOUSE</a>	101625	93	Myelin regulatory factor-like protein OS=Mus musculus GN=Myrf1 PE=2 SV=1

(b)

**Supplementary Figure S2.** (a) The result of MALDI-TOF-Mass spectrometry shows the molecular weight of MyRF DBD using for crystallization which matches the sequence 351-559 of MyRF with calculated MW 24,002 Dalton. (b). MASCOT search results for the crystals in this experiment, showing only matches with scores  $> 80$ . MASCOT reports scores as  $-10 \cdot \log(P)$ , where P is the probability that the observed match is a random event. A probability of  $10^{-20}$  thus becomes as score of 200. Note that a score above 80 is considered significant ( $p < 0.05$ ).