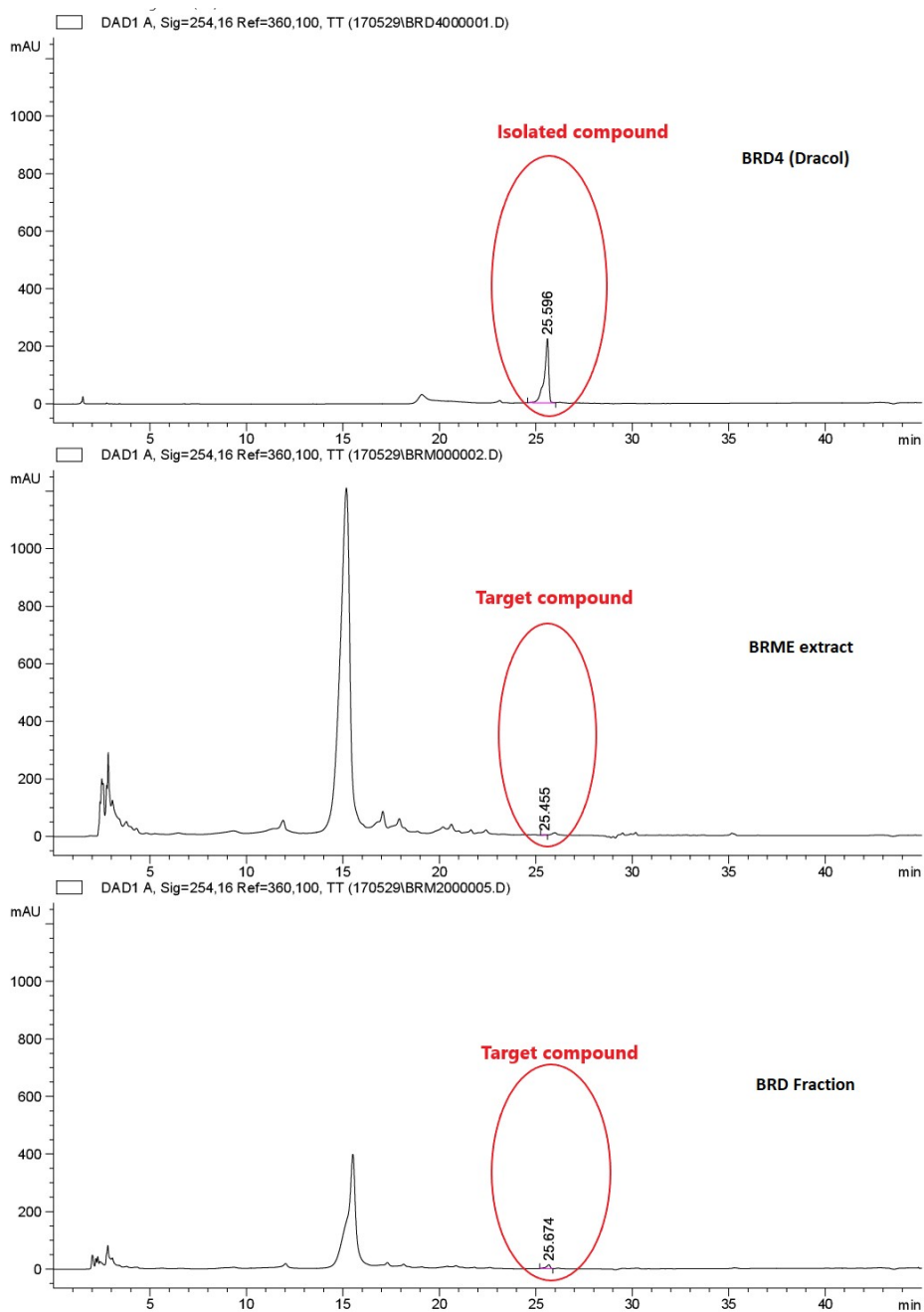
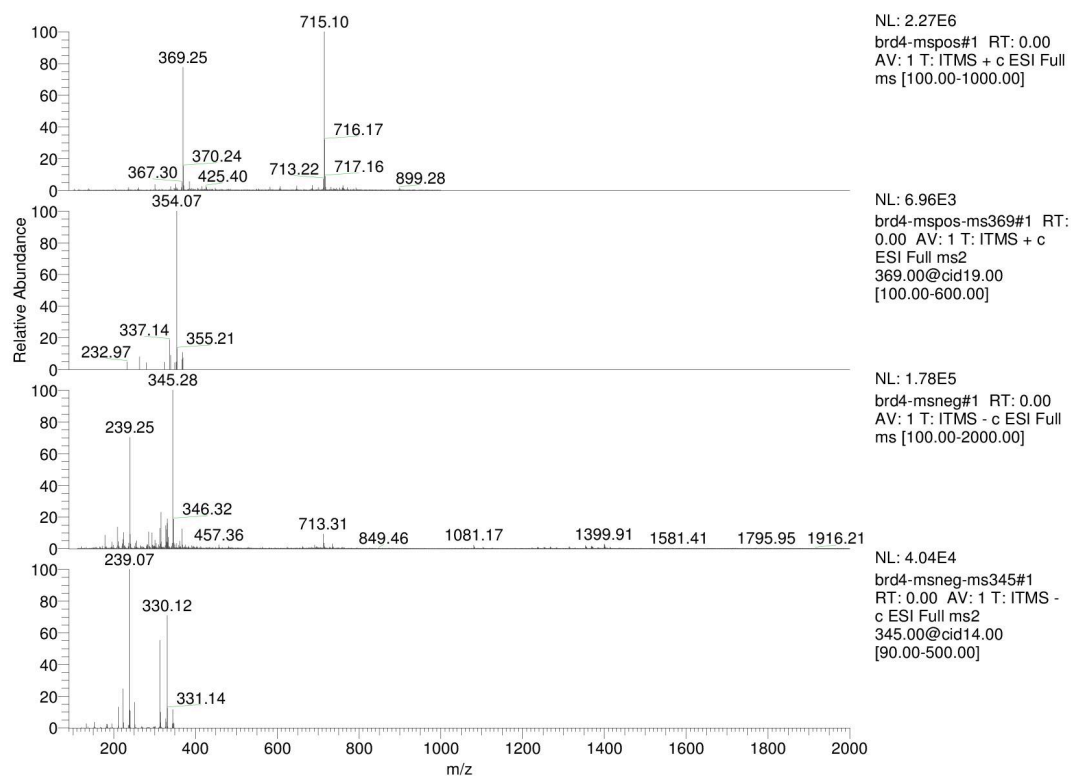


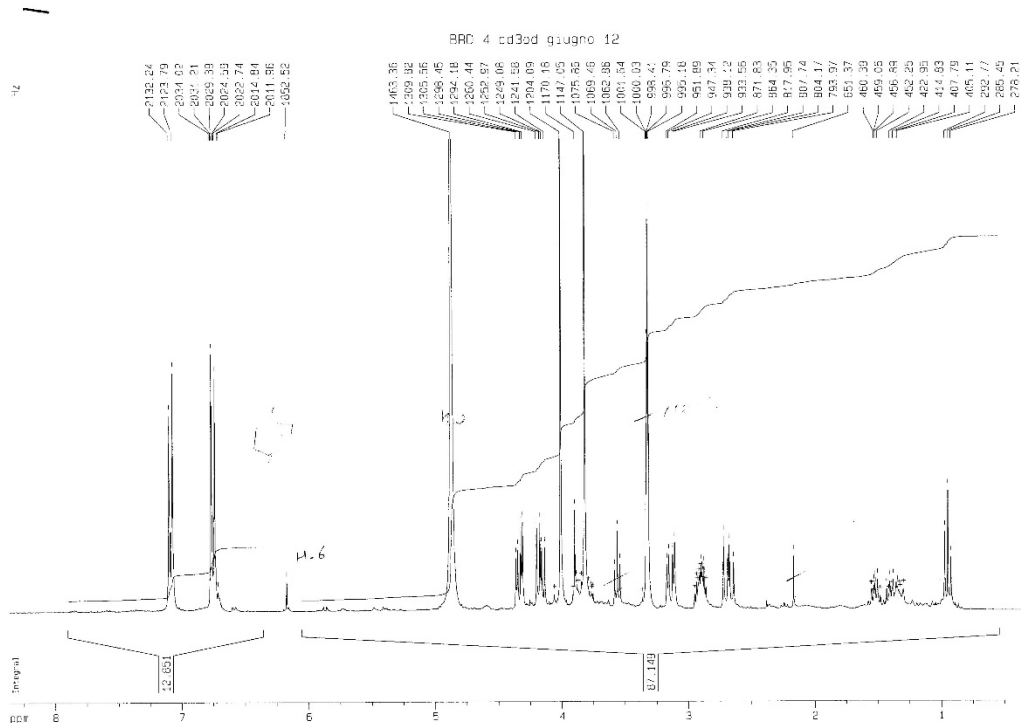
## Supplementary Material 1 (S1):



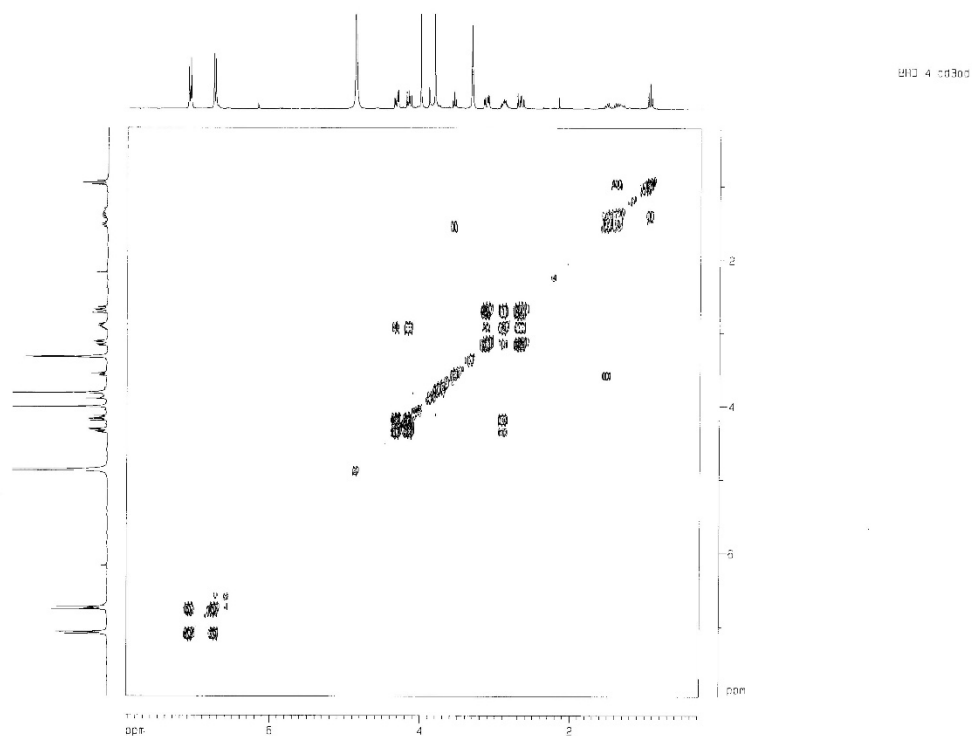
HPLC Fractionation and Isolation of homoisoflavonoid (*Dracol*) isolated from *B. saviczii* roots.



Mass spectra of homoisoflavonoid (*Dracol*) isolated from *B. saviczii* roots.

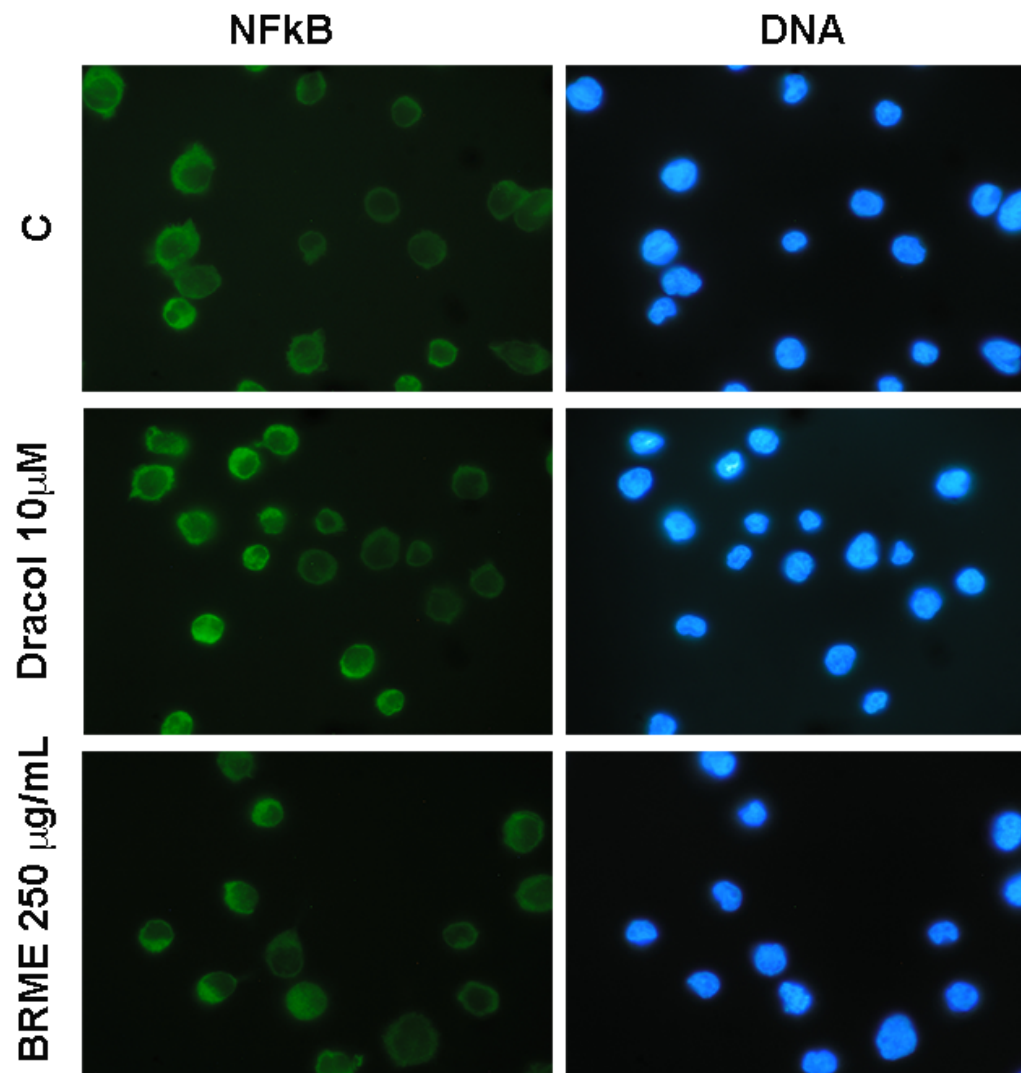


<sup>1</sup>H NMR spectrum of homoisoflavonoid (*Dracol*) isolated from *B. saviczii* roots.



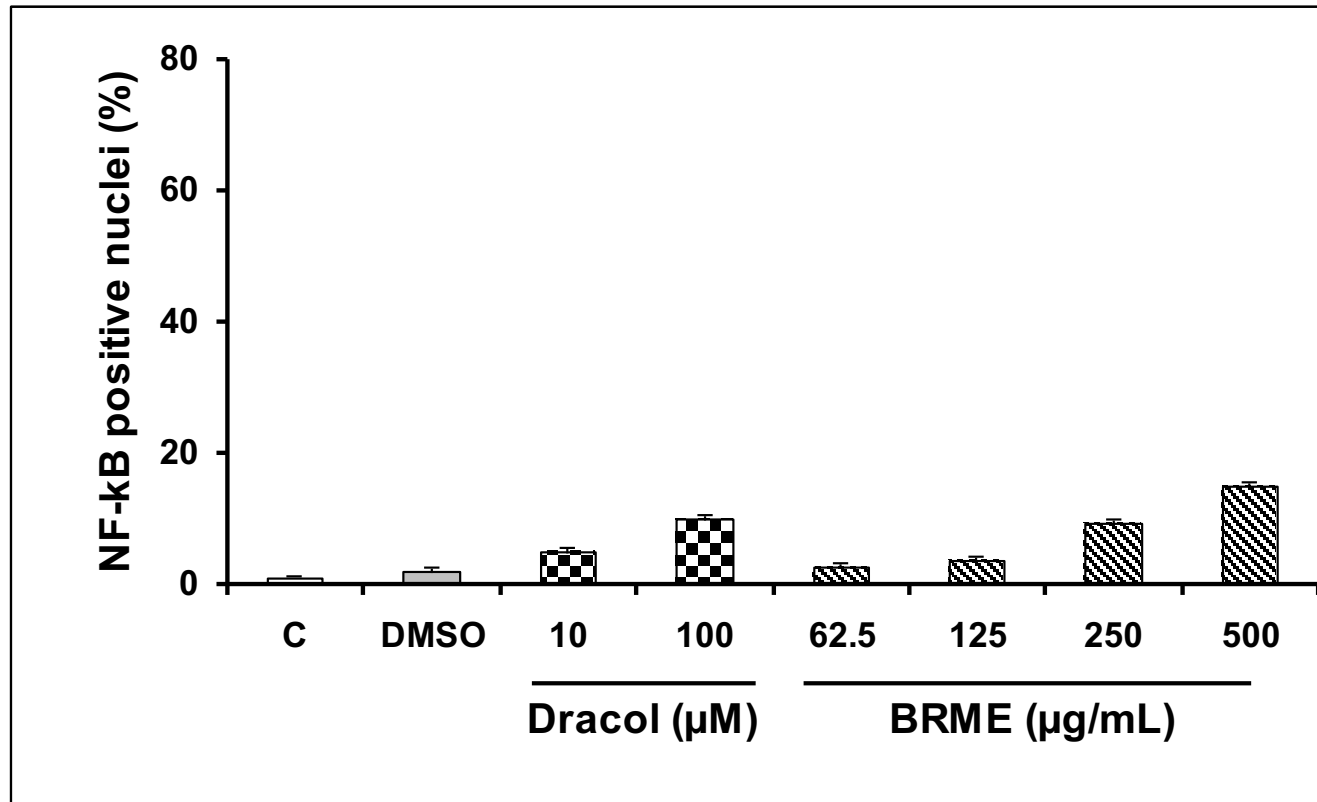
$^1\text{H}$ NMR-COSY spectrum of homoisoflavonoid (*Dracol*) isolated from *B. saviczii* roots.

## NF-kB activation with *Dracol* and BRME



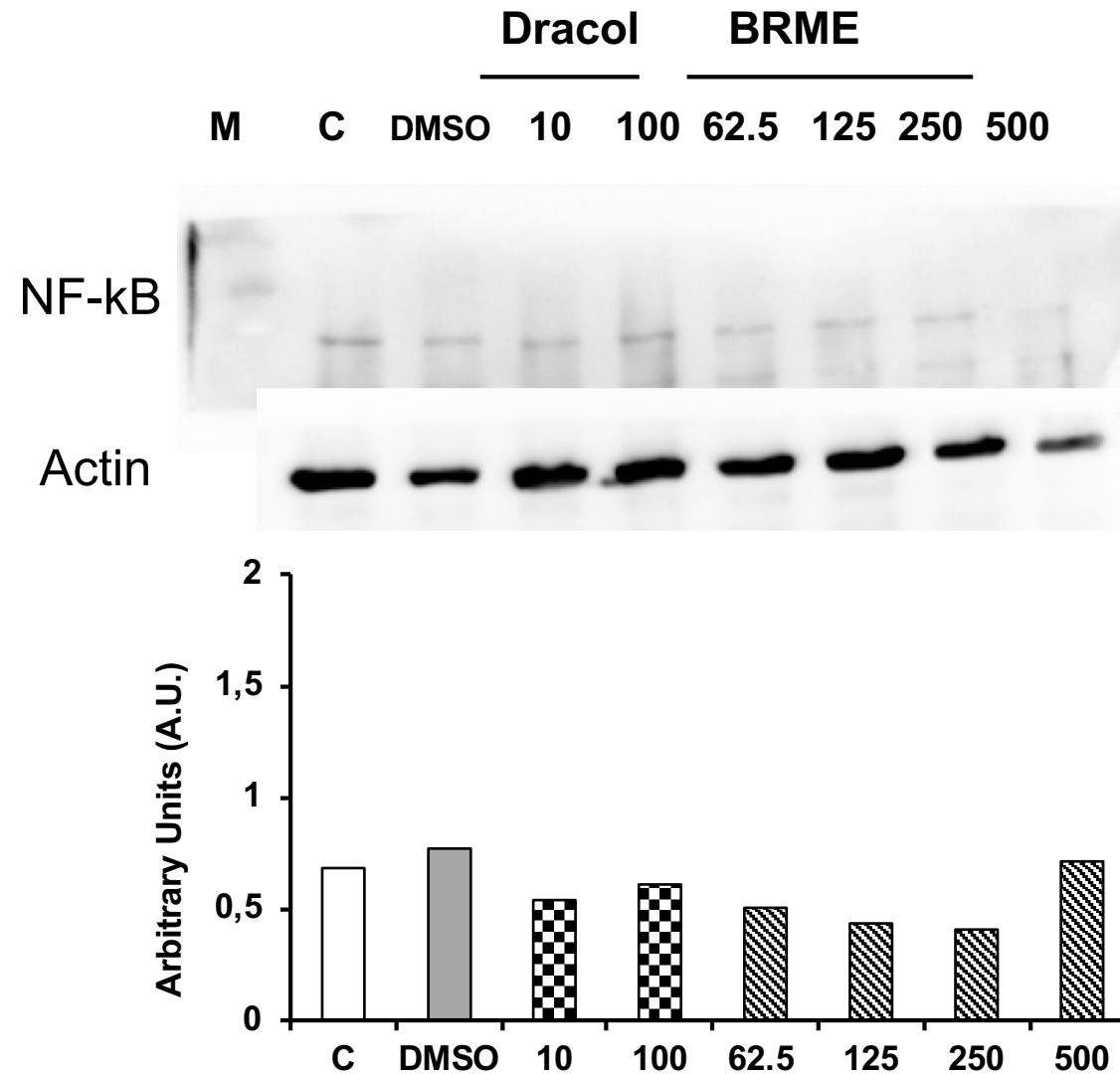
Representative images of NF-kB activation with *Dracol* and BRME alone.

## NF- $\kappa$ B activation with *Dracol* and BRME



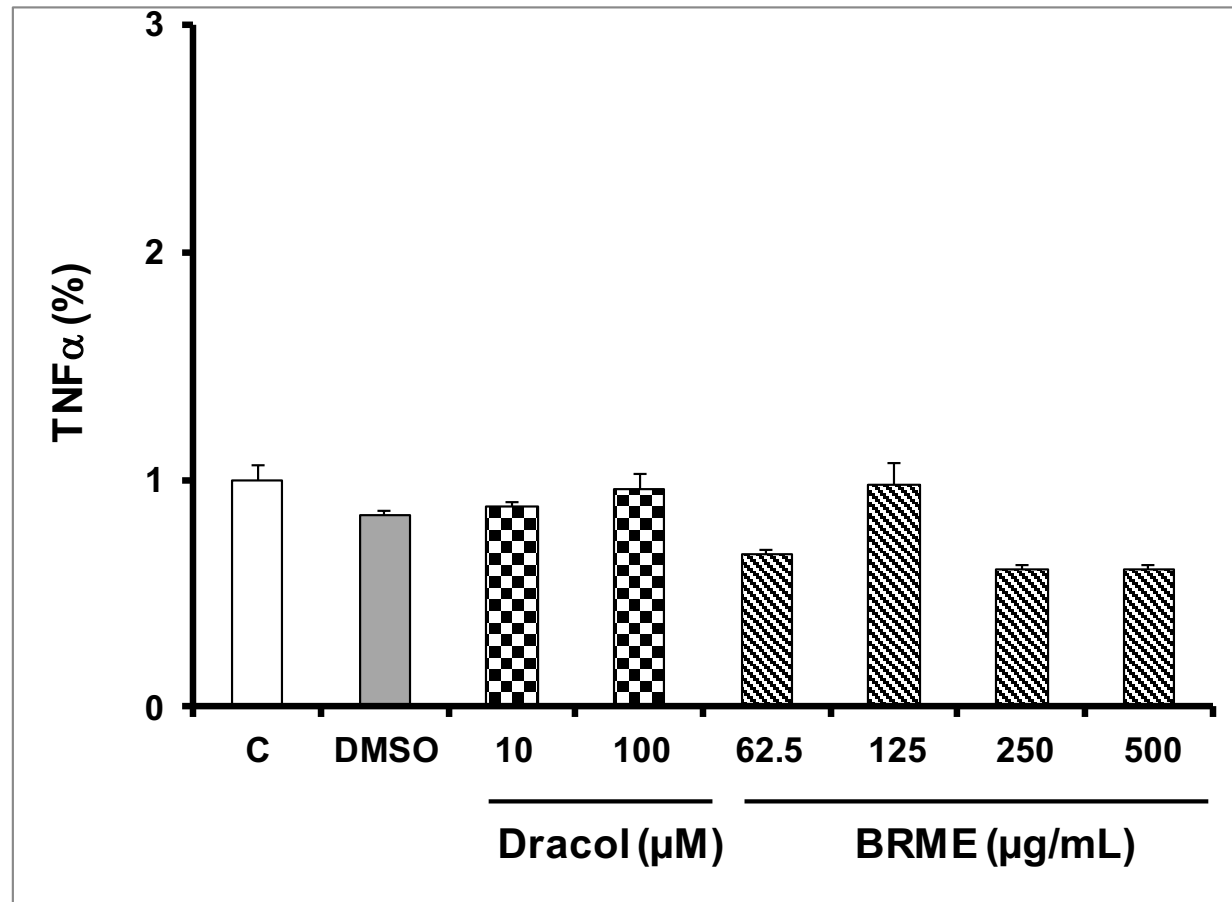
Quantitative analysis of NF- $\kappa$ B activation with *Dracol* and BRME alone obtained by immunofluorescence microscopy. Values referred to NF $\kappa$ B activation are low and comparable to control and DMSO samples.

# Representative image of Western Blot of NF-kB activation with Dracol and BRME alone and relative quantitative analysis



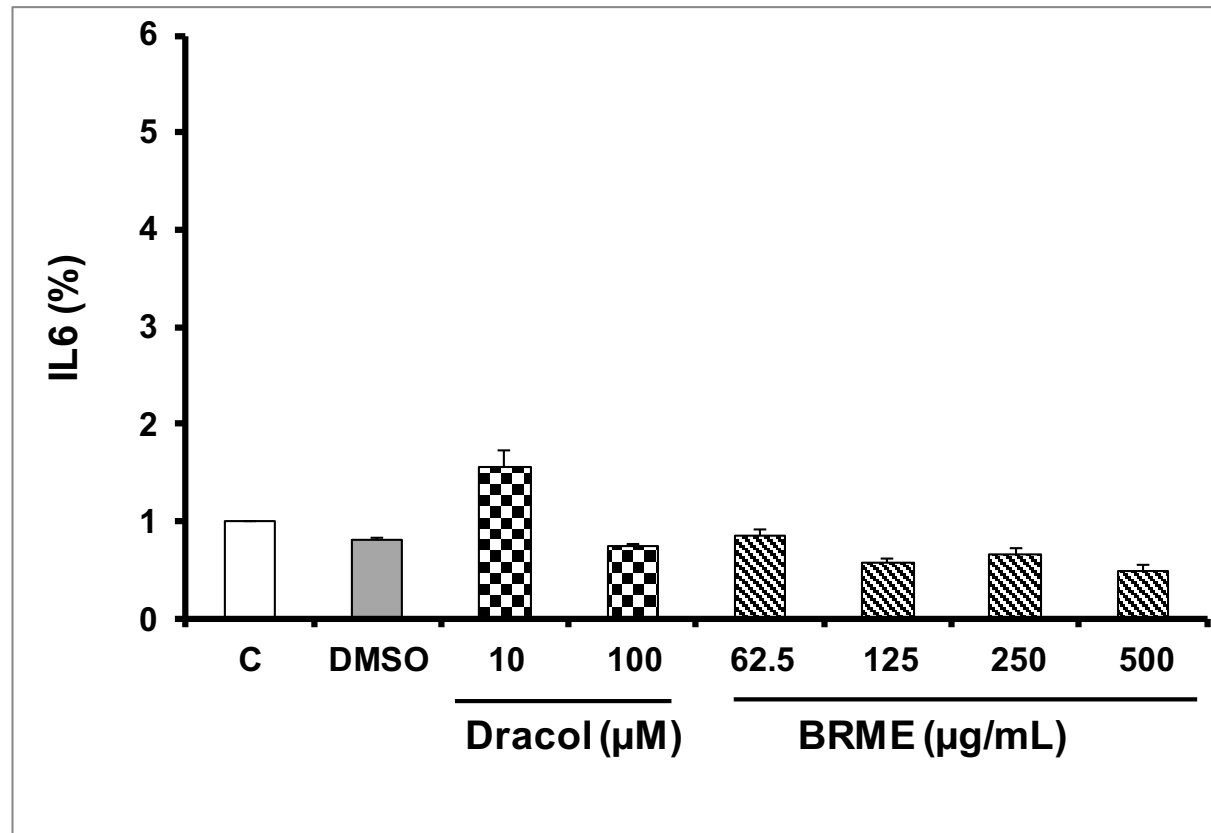
NF-kB values are low and comparable to control and DMSO samples.

## TNF $\alpha$ levels with *Dracol* and BRME



TNF $\alpha$  levels released by THP1, evaluated by ELISA, after treatment with *Dracol* and BRME alone. TNF $\alpha$  values are low and comparable to control and DMSO samples.

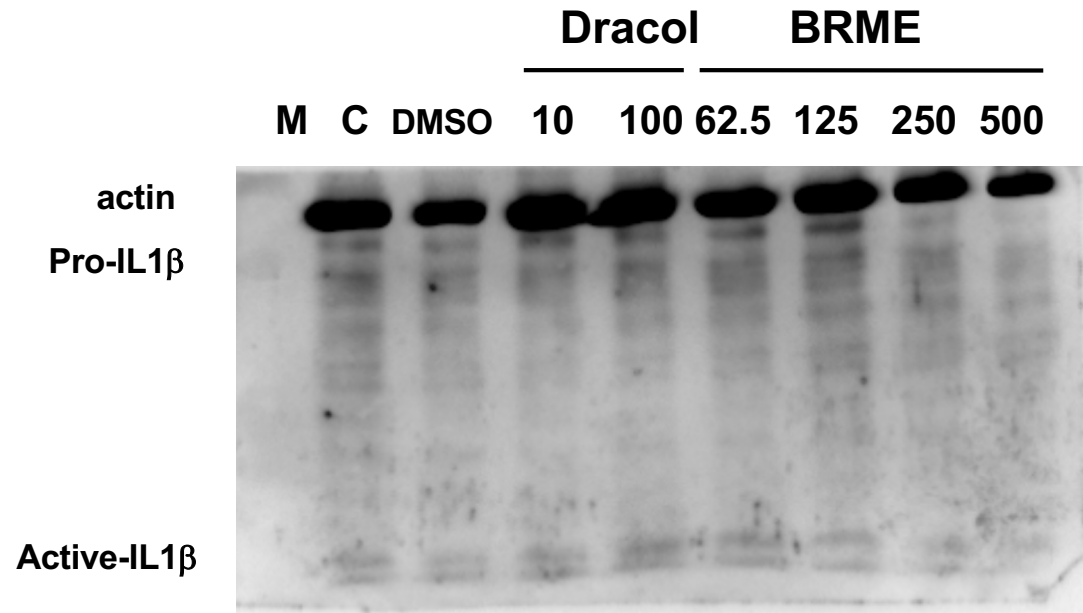
## IL6 levels with *Dracol* and BRME



IL6 levels released by THP1, evaluated by ELISA, after treatment with *Dracol* and BRME alone. IL6 values are low and comparable to control and DMSO samples.



## IL1 $\beta$ levels with *Dracol* and BRME alone



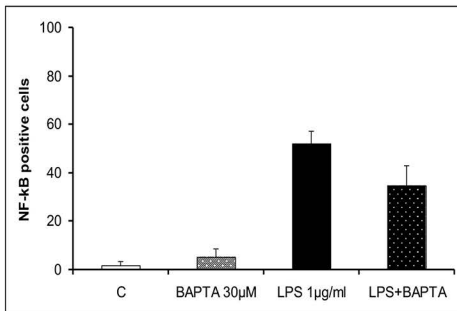
As expected, the absence of LPS did not induce IL1 $\beta$  expression.

THP1 death rate (%) evaluated by Trypan blue exclusion test after treatment  
with 200  $\mu$ M *Dracol* and 1000  $\mu$ g/mL BRME alone for different days

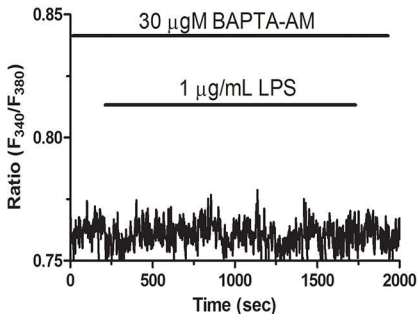
Trypan Blue (%)	24 h	48 h	72 h	96 h
C	2	3	3	4
Dracol (200 $\mu$ M)	7	5	7	8
BRME (1000 $\mu$ g/mL)	6	10	5	5

## Supplementary material 3 (S3):

### BAPTA reduced LPS-induced p65 NF- $\kappa$ B nuclear translocation



Pre-incubating THP-1 cells with BAPTA (a membrane-permeable buffer of intracellular  $\text{Ca}^{2+}$ ) attenuated p65 NF- $\kappa$ B nuclear translocation in the presence of LPS, thereby confirming the requirement for  $\text{Ca}^{2+}$  oscillations in this process.



$\text{Ca}^{2+}$  oscillations in the presence of BAPTA and LPS