

PROMEGA iSLIDES

FEATURES & BENEFITS

PROTOCOL

PROPER ENRICHMENT  
PROFILE

CAPTURE TRUE  
INTERACTIONS

PARALLEL  
INTERACTIONS

MORE INFORMATION



Promega

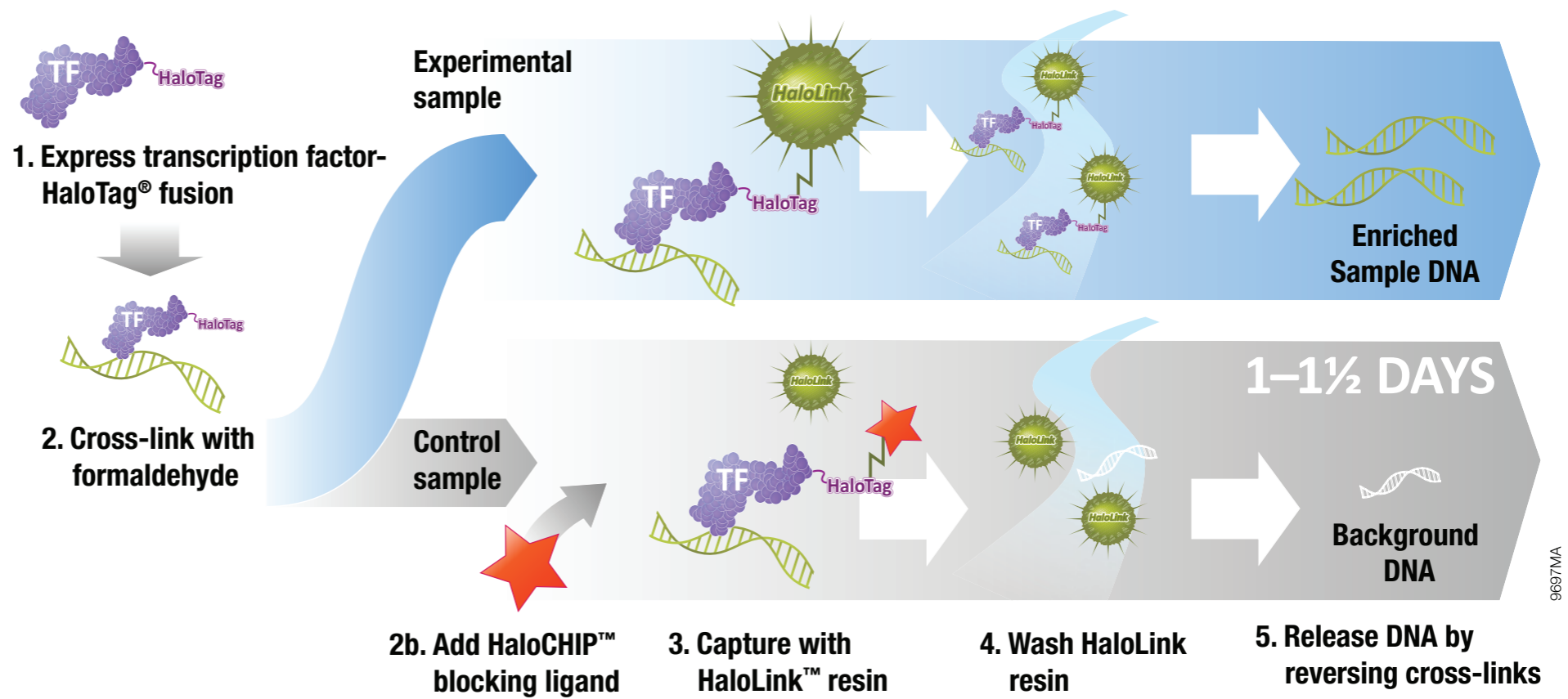
# *Protein:DNA Interactions*

*with the HaloTag<sup>®</sup> platform*



- ✓ **Universal ChIP without antibodies**
- ✓ **Simple and rapid**
- ✓ **Accurate signal/noise ratio**

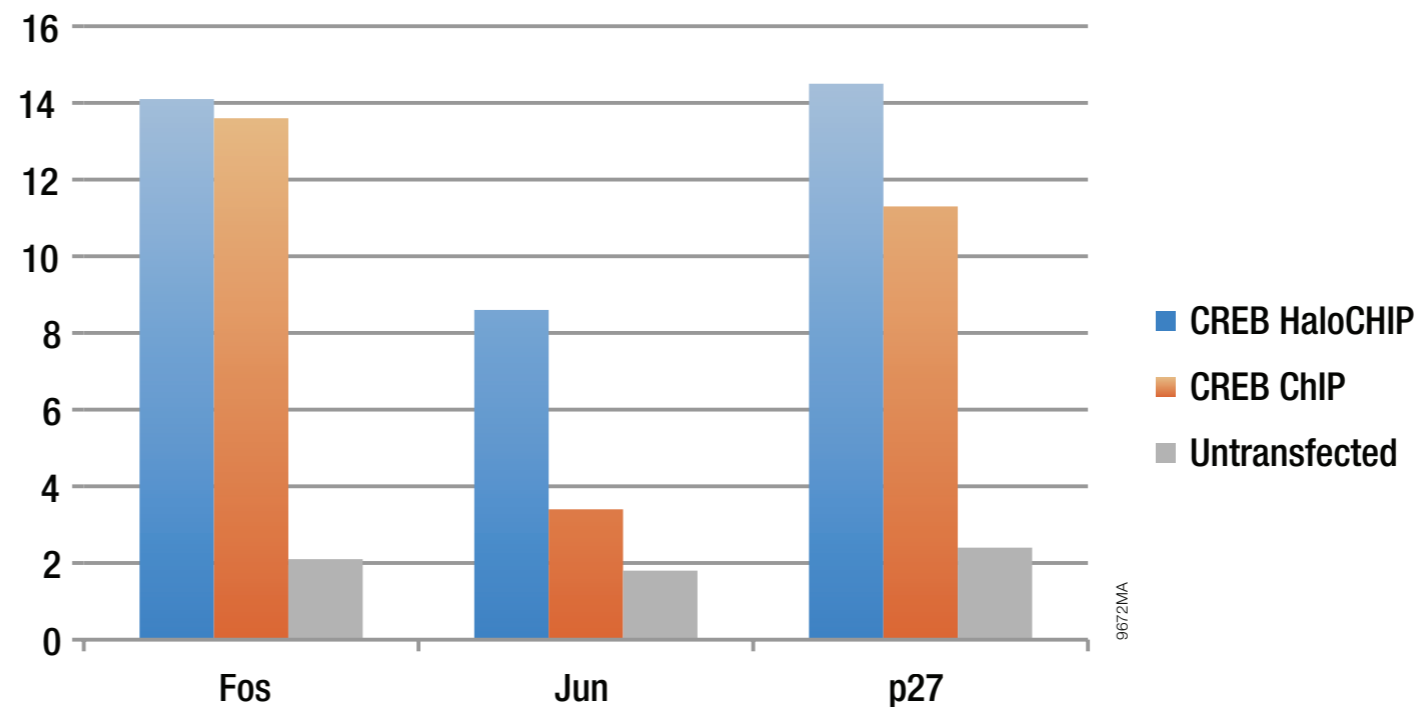
# HaloCHIP™ Protocol Overview



9697MA

## ***Proper enrichment profile was maintained***

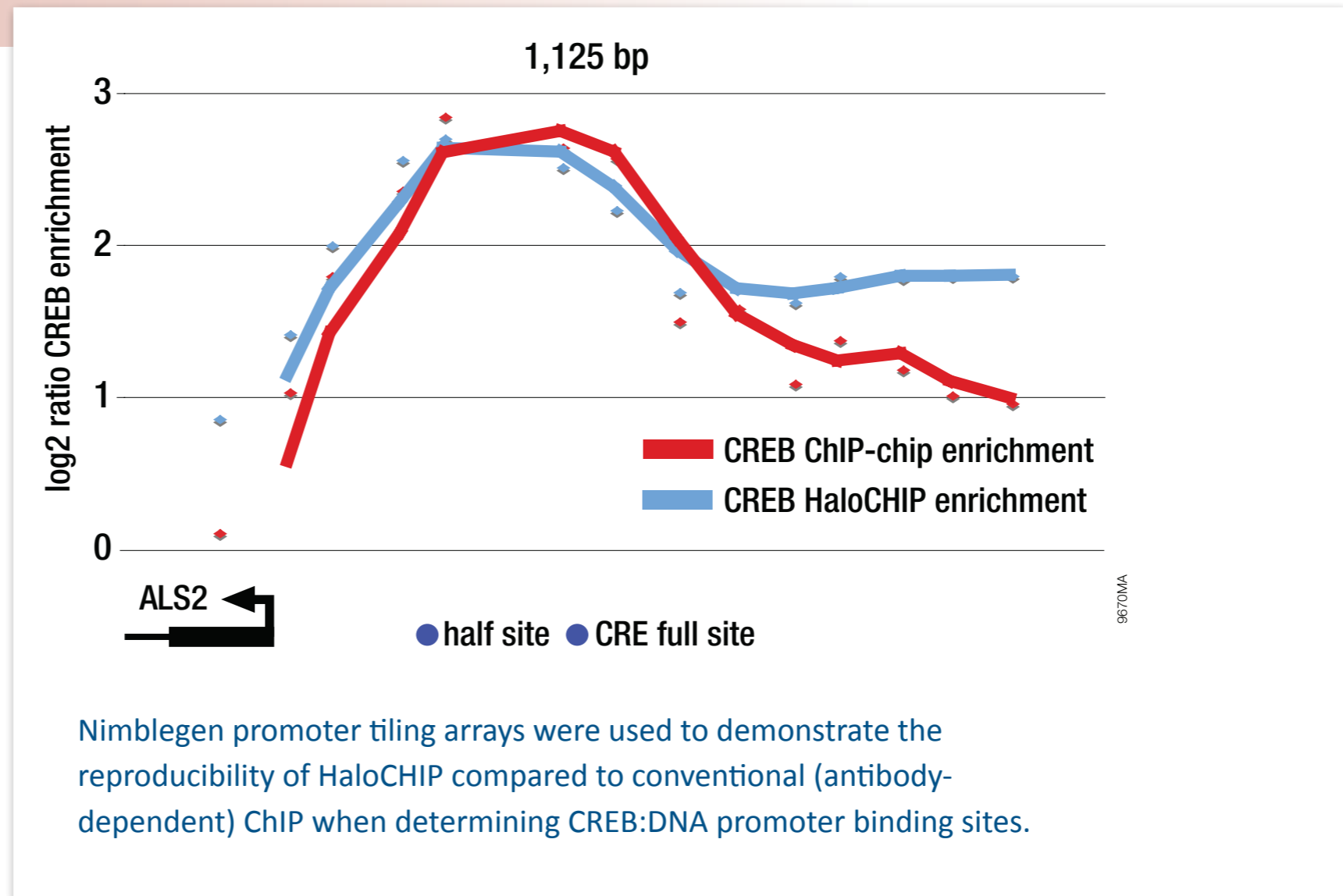
Similar fold enrichment pull-down results were obtained using HaloCHIP™ to pull-down CREB:DNA partners as compared to conventional CREB ChIP.



Conventional (antibody-dependent) ChIP was compared to HaloCHIP for CREB:DNA binding sequences. No significant differences in enrichment patterns were found when comparing known CREB-binding sites: *Fos*, *Jun*, and *p27*.

## HaloCHIP™ captures true protein:DNA interactions

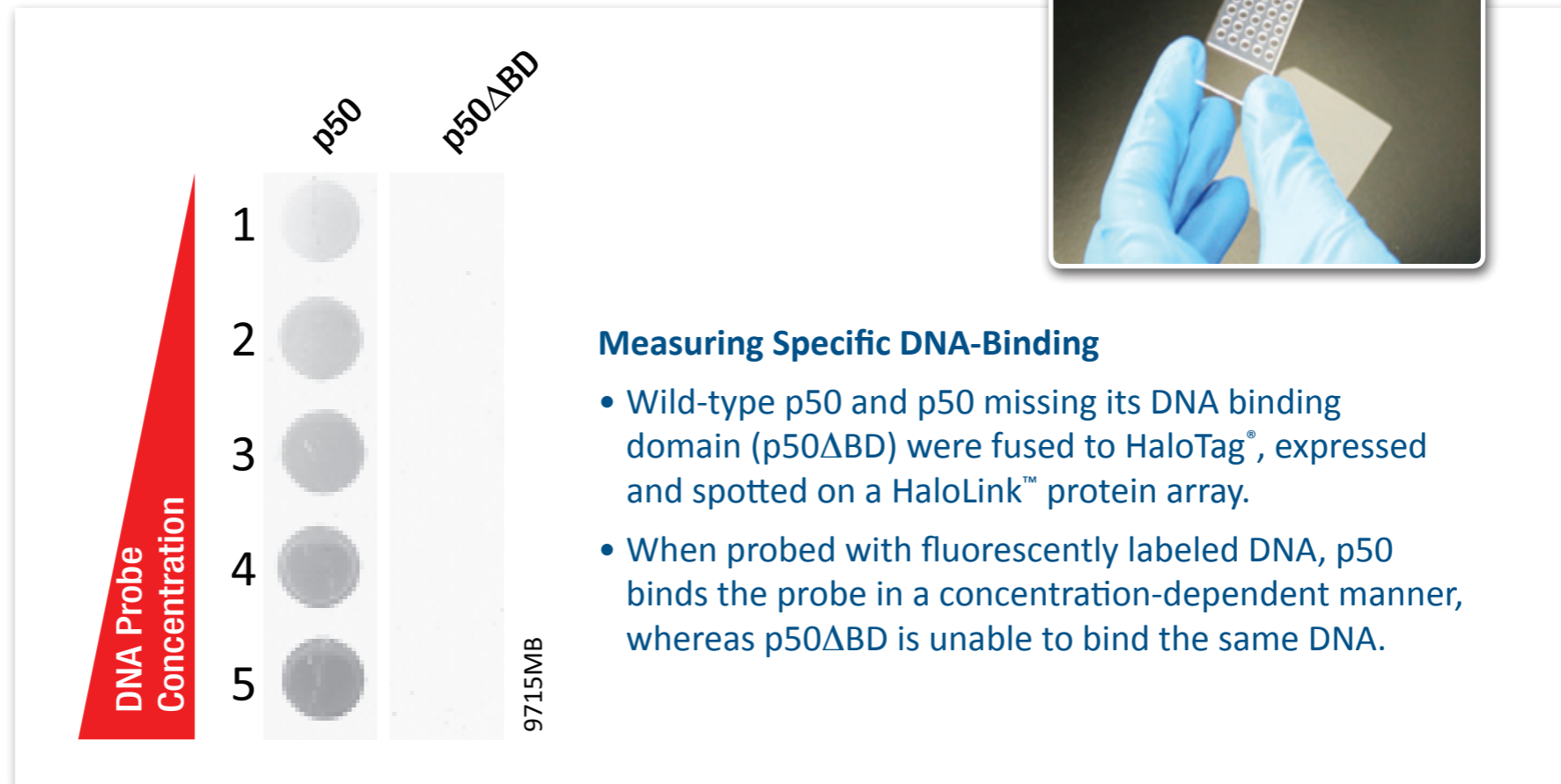
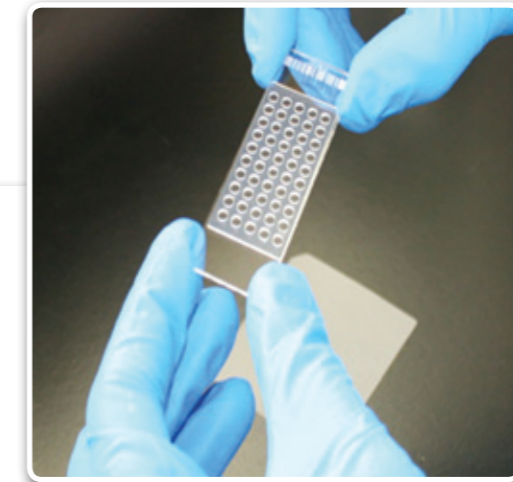
Excellent reproducibility in binding between HaloCHIP and conventional antibody-dependent ChIP.



Hartzel, D.D. *et al.* (2009) A functional analysis of the CREB signaling pathway using HaloCHIP-chip and high throughput reporter assays. *BMC Genomics*; 10:497.

## Study multiple protein:DNA interactions in parallel

Customizable, on-demand protein arrays



### Measuring Specific DNA-Binding

- Wild-type p50 and p50 missing its DNA binding domain (p50ΔBD) were fused to HaloTag®, expressed and spotted on a HaloLink™ protein array.
- When probed with fluorescently labeled DNA, p50 binds the probe in a concentration-dependent manner, whereas p50ΔBD is unable to bind the same DNA.



## References

Hartzel, D.D. *et al.* (2009) A functional analysis of the CREB signaling pathway using HaloCHIP-chip and high throughput reporter assays. *BMC Genomics*; **10**:497.

Nath, N. *et al.* (2009) Multiplexed Protein-Interaction Studies Using HaloLink™ Protein Arrays. [Internet, cited: 2011, 01, 28]; 1, tpub\_003.



## Ordering Information

PRODUCT	SIZE	CATALOG #
HaloCHIP™ System	20 reactions	G9410
HaloLink™ Protein Arrays	various	G6140, G6180, G6190

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