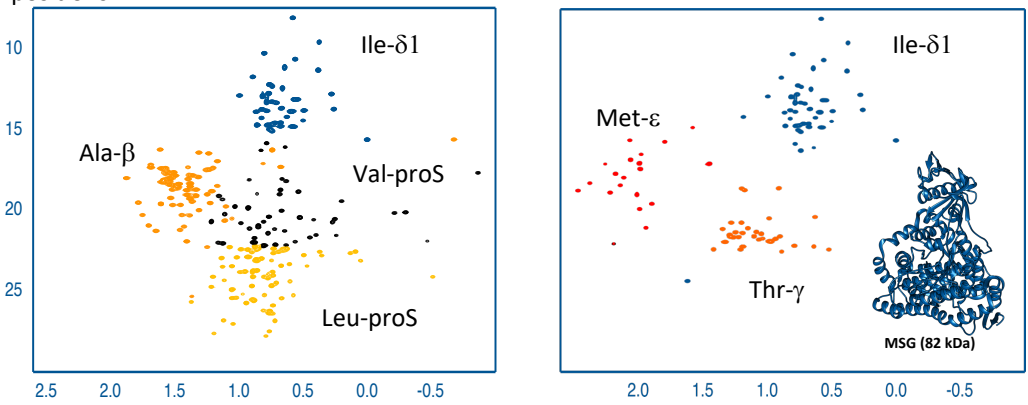
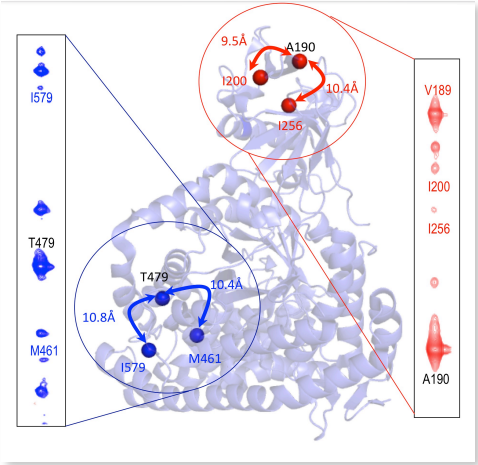
Combinatorial Labeling Kits for Long-range nOes Detection

User-friendly solutions for the simultaneous labeling of any combinations of Ala, Ile, Leu, Met, Thr & Val methyl groups.

NMR-Bio kits include the regio-specific and/or stereo-specific labeling of Ile, Leu, and Val residues. Kits are provided with precise protocols extensively tested *in-vivo* to ensure optimal incorporation of isotopes in targeted methyl groups without detectable scrambling in other positions.



2D Methyl-TROSY and 3D ^{13}C-edited NOESY spectra of MSG 82 kDa labeled using NMR-Bio kits QLAM-$A^{\beta}I^{\delta1}LV^{proS}$ & TLAM-$I^{\delta1}M^{\varepsilon}T^{\gamma}$



Detection of long-range nOes between methyl probes distant by up to 10 Å in large proteins and complexes

NMR-Bio scrambling free labeling solutions are optimized for the extraction of precise and long-range nOe distance restraints between methyl probes in perdeuterated proteins. Compared to standard 2-keto acids, NMR-Bio acetolactate precursors increase sensitivity by up to a factor of 4, allowing for the detection of structurally meaningful long-range and intermolecular nOes restraints.

Recommended kits:

TLAM-$A^{\beta}I^{\delta1}M^{e}/I^{\delta1}LV^{proS}/I^{\delta1}M^{\varepsilon}T^{\gamma}$

QLAM-$A^{\beta}I^{\delta1}LV^{proS}/A^{\beta}M^{\varepsilon}LV^{proS}/I^{\delta1}LV^{proS}T^{\gamma}/I^{\delta1}M^{\varepsilon}LV^{proS}$

PLAM-$A^{\beta}I^{\delta1}M^{\varepsilon}LV^{proS}/I^{\delta1}M^{\varepsilon}LV^{proS}T^{\gamma}$

HLAM-$A^{\beta}I^{\delta1}M^{\varepsilon}LV^{proS}T^{\gamma}$

References:

Kerfah et al., J Biomol NMR. 2015, 61(1):73-82

Kerfah et al., Curr Opin Struct Biol. 2015, 32:113-22

NMR-Bio patented precursors are specifically deuterated and supplied as frozen user-friendly kits ready to use without requirement of any further chemical modification. All NMR-Bio kits are calibrated for addition into deuterated M9 culture medium prior to induction. NMR-Bio kits have been optimized to incorporate $^{13}CH_3$ or $^{13}CHD_2$ isotopomers in selected methyl groups of proteins, with the possibility to incorporate a linear ^{13}C spin system connecting the specifically labeled methyl

specifically labeled methyl groups to the backbone nuclei. Kits are provided with precise protocols extensively tested *in-vivo* to ensure optimal incorporation of isotopes in targeted methyl groups without detectable scrambling in other positions.

Examples of kits	$^{13}CH_3$ groups Labeled	Prices* (1 kit for 1 L. of culture)
TLAM-I$^{\delta1}$LV^{proS}	Ile$^{\delta1}$ Leu^{proS} Val^{proS}	390 €
TLAM-A$^{\beta}$I$^{\delta1}$M$^{\varepsilon}$	Ala$^{\beta}$ Ile$^{\delta1}$ Met$^{\varepsilon}$	1270 €
TLAM-I$^{\delta1}$M$^{\varepsilon}$T$^{\gamma}$	Ile$^{\delta1}$ Met$^{\varepsilon}$ Thr$^{\gamma}$	915 €
QLAM-A$^{\beta}$M$^{\varepsilon}$LV^{proS}	Ala$^{\beta}$ Met$^{\varepsilon}$ Leu^{proS} Val^{proS}	1335 €
QLAM-I$^{\delta1}$M$^{\varepsilon}$LV^{proS}	Ile$^{\delta1}$ Met$^{\varepsilon}$ Leu^{proS} Val^{proS}	745 €
QLAM-I$^{\delta1}$LV^{proS}T$^{\gamma}$	Ile$^{\delta1}$ Leu/Val^{proS} Thr$^{\gamma}$	845 €
QLAM-A$^{\beta}$I$^{\delta1}$LV^{proS}	Ala$^{\beta}$ Ile$^{\delta1}$ Leu^{proS} Val^{proS}	970 €
PLAM-I$^{\delta1}$M$^{\varepsilon}$LV^{proS}T$^{\gamma}$	Ile$^{\delta1}$ Met$^{\varepsilon}$ Leu/Val^{proS} Thr$^{\gamma}$	1200 €
PLAM-A$^{\beta}$I$^{\delta1}$M$^{\varepsilon}$LV^{proS}	Ala$^{\beta}$ Ile$^{\delta1}$ Met$^{\varepsilon}$ Leu/Val^{proS}	1325 €
PLAM-A$^{\beta}$I$^{\gamma2}$M$^{\varepsilon}$LV^{proS}	Ala$^{\beta}$ Ile$^{\gamma2}$ Met$^{\varepsilon}$ Leu/Val^{proS}	1350 €
HLAM-A$^{\beta}$I$^{\delta1}$M$^{\varepsilon}$LV^{proS}T$^{\gamma}$	Ala$^{\beta}$ Ile$^{\delta1}$ Met$^{\varepsilon}$ L/V^{proS} Thr$^{\gamma}$	1710 €

For any kit including Val-proR & Leu-proR, please inquire !

The listed prices exclude shipping fees and importation tax. Discounts apply for larger quantities. For specific quote contact us at ***sales@nmr-bio.com***

www.nmr-bio.com