

# Kits for Methyl Groups Assignment

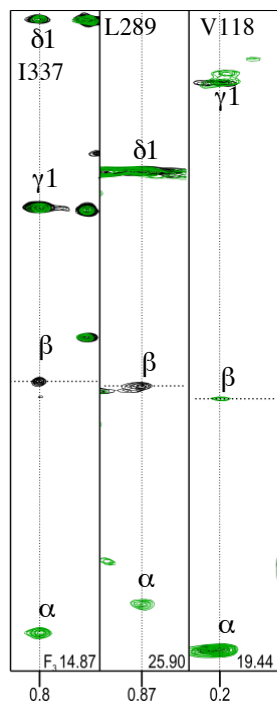
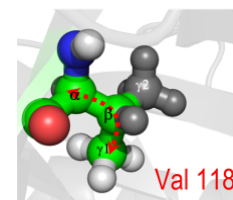
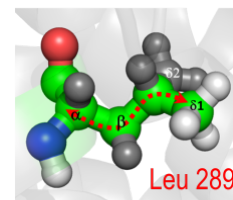
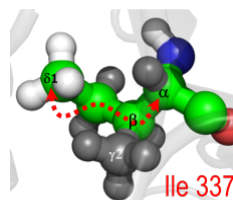
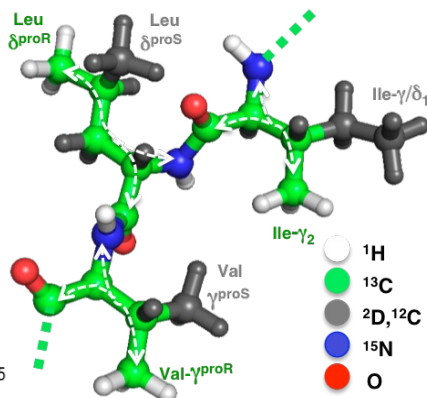
User-friendly solutions for the sequential assignment of Ala, Ile, Leu & Val methyl groups.

**NMR-Bio** has optimized kits for the assignment of Alanine, Isoleucine, Leucine and Valine residues. Precursors are designed to connect regio- or stereospecific labeled  $^{13}\text{CH}_3$  group to the  $^{15}\text{N}/^{13}\text{C}$  backbone nuclei via **a linear  $^{13}\text{C}$  spin system**. Use our labeling kits to assign separately or simultaneously methyl groups of different amino acids.

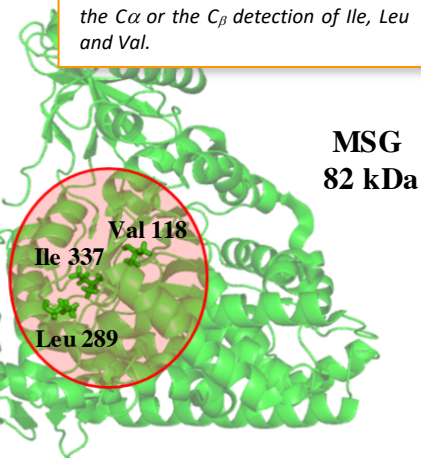
Optimized labeling of Ile, Leu and Val for assignment. Protein was produced in  $U\text{-}[^2\text{H},^{13}\text{C},^{15}\text{N}]$  M9 medium supplemented with **TLAM- $I^{\delta 1}LV^{\text{proR}}$ - $U\text{-}[^{13}\text{C}]$**  kits.

Recommended kits:

SLAM- $I^{\delta 1}\text{-}^{13}\text{C}_5 / I^{\gamma 2}\text{-}^{13}\text{C}_4 / A^{\beta}\text{-}^{13}\text{C}_3$ ,  
DLAM- $LV^{\text{proR}}\text{-}^{13}\text{C}_4$ , TLAM- $I^{\delta 1}LV^{\text{proR}}\text{-}U\text{-}[^{13}\text{C}]$ ,



Superimposition of 2D extracts of 3D out-and-back HCCH TOCSY of MSG protein produced in  $U\text{-}[^2\text{H},^{13}\text{C},^{15}\text{N}]$  M9 medium supplemented with **TLAM- $I^{\delta 1}LV^{\text{proR}}$ - $U\text{-}[^{13}\text{C}]$**  kit. The acquired NMR experiments were optimized for the  $C\alpha$  or the  $C\beta$  detection of Ile, Leu and Val.

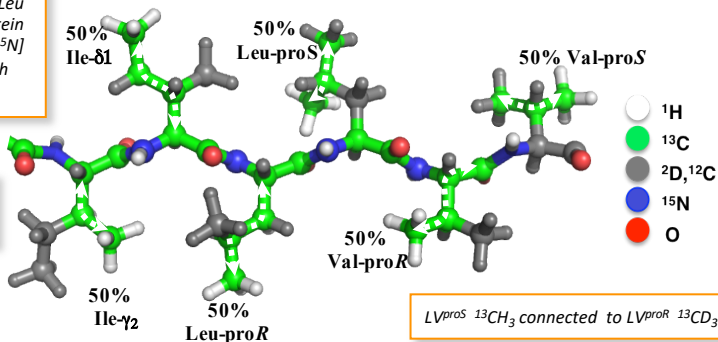


## Sequential and side chains assignment with stereo- and regio- specific identification of all Ala, Ile, Leu and Val methyl groups using a single sample and a single NMR experiment !

The new NMR-Bio combinatorial labeling kit permits to assign simultaneously Ala- $\beta$ , Ile- $\delta_1$ , Ile- $\gamma_2$ , Leu- $\delta_1$ , Leu- $\delta_2$ , Val- $\gamma_1$  and Val- $\gamma_2$  using a single triple resonance NMR experiment (Out-and-Back HCCH TOCSY ) and just one sample.

Optimized labeling of Ile, Leu and Val for assignment. Protein was produced in U-[ $^2\text{H}$ ,  $^{13}\text{C}$ ,  $^{15}\text{N}$ ] M9 medium supplemented with TLAM- $^{17/2/\delta_1}$ LV $^{\text{proR/proS}}$

$^{17/2}$ ,  $^{1\delta_1}$  & LV $^{\text{proR}}$   $^{13}\text{CH}_3$  connected to backbone



Examples of kits	$^{13}\text{CH}_3$ groups Labeled	Prices* (1 kit for 1 L. of culture)
SLAM-I $^{\delta_1}$ - $^{13}\text{C}_5$	Ile $^{\delta_1}$	420 €
SLAM-I $^{\gamma_2}$ - $^{13}\text{C}_4$	Ile $^{\gamma_2}$	695 €
SLAM-V $^{\text{proR}}$ - $^{13}\text{C}_4$	Val $^{\text{proR}}$	695 €
DLAM-LV $^{\text{proR}}$ - $^{13}\text{C}_4$	Leu $^{\text{proR}}$ Val $^{\text{proR}}$	550 €
DLAM-LV $^{\text{proY}}$	Leu $^{\text{proS}}$ Val $^{\text{proS}}$ LV $^{\text{proS}}$ $^{13}\text{CH}_3$ connected to LV $^{\text{proR}}$ $^{13}\text{CD}_3$ Through a linear $^{13}\text{C}$ spin system	550 €
DLAM-I $^{\delta_1}$ V $^{\text{proR}}$ -U-[ $^{13}\text{C}$ ]	Ile $^{\delta_1}$ Val $^{\text{proR}}$	1120 €
DLAM-I $^{\gamma_2}$ V $^{\text{proR}}$ -U-[ $^{13}\text{C}$ ]	Ile $^{\gamma_2}$ Val $^{\text{proR}}$	1150 €
TLAM-I $^{\gamma_2}$ LV $^{\text{proR}}$ -U-[ $^{13}\text{C}$ ]	Ile $^{\gamma_2}$ Leu $^{\text{proR}}$ Val $^{\text{proR}}$	1000 €
TLAM-I $^{\delta_1}$ LV $^{\text{proR}}$ -U-[ $^{13}\text{C}$ ]	Ile $^{\delta_1}$ Leu $^{\text{proR}}$ Val $^{\text{proR}}$	970 €
TLAM-I $^{\gamma_2/\delta_1}$ LV $^{\text{proR/proS}}$ I $^{\delta_1/\gamma_2}$ & LV $^{\text{proR}}$ $^{13}\text{CH}_3$ connected to backbone LV $^{\text{proS}}$ $^{13}\text{CH}_3$ connected to LV $^{\text{proR}}$ $^{13}\text{CD}_3$	Ile $^{\delta_1/\gamma_2}$ Leu $^{\text{proR/proS}}$ Val $^{\text{proR/proS}}$ Kerfah et al., J Biomol NMR. 2015; 63(4):389-402	1100 €

For any kit including U- $^{13}\text{C}$ -Ala- $\beta$ , please inquire !

– ACADEMIC RESEARCH USE ONLY –

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