```
l_before_member  THM

⊢  ∀T:Type, L:T List, a,b:T. a before b ∈ L ⇒ (b ∈ L)
| by Unfolds ``l_before`` 0 THEN Auto
|
1. T : Type
2. L : T List
3. a : T
4. b : T
5. [a; b] ⊆ L
⊢  (b ∈ L)  by BackThruLemma `member_iff_sublist` THEN Auto
|
1. T : Type
2. L : T List
3. a : T
4. b : T
5. [a; b] ⊆ L
⊢  [b] ⊆ L
| by Using [`L2', [a; b]
|    ] (BackThruLemma `sublist_transitivity`) THEN Auto
|
1. T : Type
2. L : T List
3. a : T
4. b : T
5. [a; b] ⊆ L
⊢  [b] ⊆ [a; b]
| by BackThruLemma `sublist_tl` THEN Reduce 0 THEN Auto
|
|\
| 1. T : Type
| 2. L : T List
| 3. a : T
| 4. b : T
| 5. [a; b] ⊆ L
| ⊢  ¬False  by SimpConcl
|
.\
. 1. T : Type
. 2. L : T List
. 3. a : T
. 4. b : T
. 5. [a; b] ⊆ L
. ⊢  [b] ⊆ [b]  by BackThruLemma `sublist_weakening` THEN Auto
END
```