```
sublist_of_nil_iff_nil  THM

⊢  ∀eq:{T=₂}, L:T List. L(⊆eq)nil ⟺ L = nil  by UnivCD
|
1. T : Type
2. eq : {T=₂}
3. L : T List
⊢  L(⊆eq)nil ⟺ L = nil  by Unfold ‘sublist‘ 0
|
⊢  ∀x∈L.x(∈eq) nil ⟺ L = nil
| by Rewrite (HigherC is_member_unrollC THENC HigherC assert_evalC) 0
|
⊢  ∀x∈L.False ⟺ L = nil
| by Analyze 3 THEN Rewrite (HigherC list_all_unrollC) 0
|
|\
| ⊢  True ⟺ nil = nil  by Auto
|
.\
. 4. u : T
. 5. v : T List
. ⊢  False & ∀x∈v.False ⟺ u.v = nil  by Auto
. |
. |\
. | 6. u.v = nil
. | ⊢  False
. |   by ApFunToHypEquands ‘x’ if null(x)→ 0 else 1 fi ℤ -1
. |      THEN
. |      Reduce -1
. |
. .\
. . 6. u.v = nil
. . ⊢  ∀x∈v.False
. .   by ApFunToHypEquands ‘x’ if null(x)→ 0 else 1 fi ℤ -1
. .      THEN
. .      Reduce -1
END
```