```
hlist_iso_def  THM

⊢  ∀'a:S.
|  and
|  (all(λa:hlist('a). equal(abs_list(rep_list(a)),a))
|  ,all
|   (λr:hprod((hnum → 'a); hnum). equal
|                                  (is_list_rep(r)
|                                  ,equal(rep_list(abs_list(r)),r))))
| by (HN THEN (Analyze 0)) THEN Try (Complete Auto)
|
1. 'a : S
⊢  (∀a:hlist('a). abs_list(rep_list(a)) = a)
|  & (∀r:hprod((hnum → 'a); hnum).
|     is_list_rep(r) = ((rep_list(abs_list(r))) =b r))
| by ((Inst
|      Thm* ∀'a,'b:S, P:('b→𝔹), rep:('a→'b), abs:('b→'a).
|           iso_pair('a;'b;P;rep;abs)
|           ⇒
|           (∀a:'a. abs(rep(a)) = a)
|           & (∀r:'b. P(r) = ((rep(abs(r))) =b r))
|      {iso_pair_char}
|      ['a List;(ℕ→'a)×ℕ;is_list_rep;rep_list;abs_list])
|     THEN
|     HN)
|    THEN
|    Try (Complete (Unfold `label` 0))
|
.....antecedent .....
1. 'a : S
⊢  iso_pair('a List;(ℕ→'a)×ℕ;is_list_rep;rep_list;abs_list)
  by L
     Thm* ∀'a:S.
          iso_pair('a List;(ℕ→'a)×ℕ;is_list_rep;rep_list;abs_list)
     {list_iso}
     THEN
     StrongAuto
     THEN
     Try (Complete (Unfold `label` 0))
END
```